HEALTH DEPARTMENT.

REPORT

ON THE HEALTH OF THE

CITY OF LIVERPOOL

DURING

1910

BY THE

MEDICAL OFFICER OF HEALTH.

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BY

E. W. HOPE, M.D., D.Sc.,

Medical Officer of Health.



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Local Government Board Tables of Population, Births, Deaths, Infantile Mortality and Infectious Sickness.

Plan-Map showing Birth Rate in Districts of City.

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,, ,, Density of Population in Districts of City.

Table of Total Deaths registered in the City.

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PREFACE.

Census and its Results.

The publication of the Report upon the health of the City of Liverpool for the year 1910 has been delayed in order to enable the statistical section to be based upon the Census results instead of upon the estimated population. It will be seen that although the estimate of the population of the City had been somewhat higher than the Census figures show, the difference is too small to be of any practical moment in affecting returns relating to sickness or mortality. The Registrar-General's estimate of the population of the City for 1910 approximated more nearly to the actual figures than was the case in either of the two preceding census enumerations, and in this respect Liverpool contrasted markedly with several other great cities such as Glasgow, Edinburgh, Birmingham and Leeds, where the numbers were considerably below anticipations; consequently, on this occasion the necessity for a Quinquennial Census is more forcibly illustrated by these cities than by Liverpool.

Some interesting results of the Census enumeration in each of the thirteen districts into which Liverpool is divided will be seen on Table page 74. The first thing which will strike the eye is that the decline in the population of the older parts of the City has continued; the flow of the population to the outskirts of the City also continues, whilst the overflow of Liverpool workers to suburban districts, which are organic parts of Liverpool, although not at present in the same Municipal area, is equally marked.

In no one single instance has any increase taken place in the more central districts of the City; in one of them however, namely Everton, in which the population has remained practically stationary for 10 years, the decrease is only 574. On the other hand each one of the circumferential districts shows substantial additions. Walton, West Derby East, and Wavertree have each increased by very large numbers, Walton, which heads the list, by close upon 21,000 people. The circumferential parts of municipal Liverpool, in fact, show much the

same rate of increase as equally favoured localities beyond the City area whose inhabitants depend upon Liverpool and its industries for their prosperity.

The net increase during the 10 years has been 42,432, the present population being 746,566. (Page 74.)

Birth-rate.

Liverpool retains its position as having the highest Birth-rate (31 per 1,000) of any town in the United Kingdom with more than 200,000 inhabitants; the rate for England and Wales is 24·8. (Page 5.)

Decreased Death-rate.

The steady decline in the death-rate, which has been a marked and gratifying feature of the last 15 years, has continued; the rate of mortality, in 1895, which was the first year of the incorporation of Greater Liverpool, was 24·8 per 1,000; it has gradually fallen to 17·9 per 1,000 in 1910, which is the lowest rate ever recorded in the City, making a reduction in 15 years of 25 per cent. In other words, there are 41,886 people alive to-day in Liverpool, who would have died had the death-rate remained where it stood in 1895. This result would fully justify the time and labour and money expended if it stood alone as their only result; but it also represents a corresponding decrease in sickness and suffering, whilst the substitution of good conditions for bad ones will for ever prevent a recurrence of the evils of former years. (Page 12.)

Education and Health.

The Health Committee have for a long succession of years availed themselves, as far as they possibly can, of educational methods in influencing public opinion, and so promoting the public health. Their staff—itself carefully trained—is no longer one merely to detect and report upon conditions prejudicial to health with a view to their removal after official notice or magisterial admonition; a far more important function is to give instruction, where it is needed, of a kind which will result in the *prevention* of sickness; the procedure in regard to the prevention of phthisis and the protection of infant life exemplify this. The dawnings of these methods commenced in 1886 with a short course of lectures to the inspectors of lodging-houses. Very material development followed during the succeeding ten years; later, the association of the municipality with the University School of Hygiene advanced the objects still further; the then Lord Mayor presided at the opening of that School, and its successive Chairmen have been Chairmen of the Health Committee and of the Port Sanitary and Hospitals Committee.

Growing appreciation of the work of this school is evident. Year by year largely increasing numbers have attended the lectures and visited the permanent exhibition, not only those interested in the higher branches of public health, but many other classes of sanitary officers, as well as nurses, school teachers, and persons engaged in important industries such as the milk trade, or those interested in the suppression of smoke. The growing general public interest in health matters found singularly significant expression when a course of lectures on the Prevention of Tuberculosis, together with an exhibition, were conducted in July 1910, in St. Martin's Hall, and were attended, it is estimated, by not less than 40,000 people during the eight days on which the exhibition was open.

Object lessons and their uses.

All efforts to foster education in health matters tend to enlighten public opinion and to render easier and more harmonious the task of the Health Committee and other Committees dealing with the welfare of the public.

No one familiar with the conditions which preceded and the advantages following the great schemes of Water Supply, Hospital Provision, Housing of the Working Classes, Provision of Recreation Grounds, Baths, Washhouses and so forth, would seek to replace the conditions existing prior to their completion; these great works are object lessons facilitating further developments, such for example as those in connection with the construction of Queen's Drive, anticipatory of future City extension, which will for ever prevent a recurrence of the old bad conditions. But educational methods form the basis also of a vast amount of administrative work, e.g., of the Female Sanitary Staff in the saving of infant life. The Infant Life Preservation Committee, whose title explains its aims, has urged that further use should be made of the Day Nurseries in teaching the older school girls how to take care of the infant brothers and sisters entrusted to their charge while the mother is earning the family sustenance. This desirable object was in 1909 referred to the Education Committee as an educational matter pure and simple, but nothing further has come of it from that aspect, and it may therefore be practicable for the Infant Life Committee itself to initiate some tentative plan to give the scheme a trial.

The task of the Committee or the administrator, becomes easy in exact proportion to the diffusion of information relating to the advantages of

healthy surroundings. For reasons referred to in the following pages the needs of Liverpool are exceptional, and the City cannot afford to neglect any means by which its sanitation may be improved, nor to temporise in any matter affecting the health of the citizens.

Medical Inspection of School Children.

The work of medical inspection of school children, as far as it is gone, has been attended with markedly beneficial results, and affords evidence that slowly but surely parents are recognising more fully their obligations in respect to the children's ailments and disabilities which is in their power to remove. One result of this recognition has been to throw a great deal of extra work upon nurses as well as upon medical men, medical charities and medical institutions. The presence of the parents at the examination—always invited—is not secured as frequently as might be desired, and as a consequence the formal intimation of defects becomes necessary in the majority of cases. The amount of parental attention is often reflected in the degree of cleanliness of the children; general observation shows that with regard to cleanliness the improvement in the condition of the children is very marked. The Medical Inspection of the children at the schools has also facilitated action at the homes, and enabled homes specially needing attention, to be visited by the staff of the Health Department with less loss of time than would be occasioned by routine house-to-house visitation. Cleanliness in the school and cleanliness in the home have therefore progressed together. A few prosecutions have been necessary, and these have not been without their moral effect upon negligent parents.

The Medical Officer attaches great importance to the arrangements made to enable a member of the Female Staff of the Health Committee to attend the Medical Inspector at every visit, a service perhaps resulting in promoting equally the aims of those charged with the health of the children, and of those charged with their education.

Growing experience brings the value of medical inspection into greater prominence, and as the work and its uses are becoming better understood, the interest taken in it, as well as co-operation between those engaged in it, become more cordial. (Pages 102 and 109).

Public Health aspects of the Medical Inspection of School Children.

For many years prior to the passing of the Education (Administrative Provisions) Act of 1907, the children of the City called for a very large share of the attention of the Public Health Department, and the interests of this section of the community had to an extent been safeguarded by special legislation.

It is amongst children that infectious disease is most rife, and it is they who constitute the bulk of the patients in the City Hospitals. These observations include all children, but while the Act of Parliament which provides for medical inspection deals only with children who attend school, yet it has proved beneficial, not only to these, but indirectly to those who have not yet reached the school age.

The Education Department, and the Public Health Department, have for many years been in close touch; and a very large number of communications have daily passed between them. The decision of the City Council to follow the advice of the Board of Education and of the Local Government Board to link up in the closest possible way the medical inspection of school children with the Public Health Department has already borne fruit which fully confirms the wisdom of the proceeding. The provisions of the Act have in fact furnished an opportunity to fill up some of the gaps and remove some of the defects which previously existed. (Pages 81 and 104).

Infant Mortality.

It is well known that infant mortality varies widely, not only in different towns, but in the various wards or districts of the same towns. Poverty or riches, sanitary or insanitary conditions, occupation or the want of it, high or low birth rate, all play their part in bringing these variations about. But every extended inquiry into the intricate subject of infant mortality brings to light the fact that parents living approximately under the same social and sanitary conditions have such varying success in rearing their infants that the personal factor deserves a careful study.

Decreased Death Rate from Scarlet Fever.

Upon the interesting chart facing page 26 will be seen the death-rate from scarlet fever in the City of Liverpool during the last sixty years. For the first half of this period, at intervals of a year or so, the number of deaths resulting from scarlet fever reached proportions which would now be regarded with astonishment, but from the period when hospital provision was found for the isolation of patients, and better administrative methods, aided by various Acts of Parliament, were adopted, there has been a remarkable drop in the fatality from this disease. The lesson is an important one, and may well be applied to other forms of infectious sickness, such as measles and whooping cough, which, although presenting difficulties of their own, would no doubt diminish in amount if a more complete isolation were possible. (Page 25).

Hospital Accommodation for Measles.

Hospital accommodation for a limited number of cases of measles has now been made, but the deaths from measles do not show a decline comparable to that which has taken place in the forms of infectious disease for which hospital accommodation is available. In the great number of homes in which measles occur, isolation in the house is difficult or impossible. In making arrangements for hospital isolation of measles, difficulties of a special kind arise owing to the tender age of the patient, and the peculiarities of the infection in this form of disease. The tendency to recur at intervals of about 18 months is well illustrated in the accompanying diagrams. There has, however, been no considerable outbreak since May, 1906, until the spring of both this and the preceding year, although the prevalence of the disease during 1907 and 1908, as compared with former inter-epidemic periods, was more general. (Page 28).

Tuberculosis and its decline.

The steady decline in the mortality from the various forms of tuberculosis which has been so prominently associated with improved sanitation has continued during the past year. The subject has been fully dealt with in the Report for the year 1909, but its importance justifies the references made to it in the present volume.

The appointment of an Assistant Medical Officer to carry out the work of visiting patients at their homes has been attended with very considerable advantage.

Notification of Phthisis.

The voluntary notification of phthisis and other forms of tuberculosis has now been in operation ten years. The experience so gained has been very valuable and has certainly facilitated the work in connection with the compulsory notification of pauper consumptives. It is doubtful whether the compulsory notification of all forms of tuberculosis would result at present in any great administrative advantage, but no hardship would result, and professional medical opinion would probably approve of it. (Page 63).

Phthisis.

It is not improbable that the decline in mortality from phthisis is really larger, not only in Liverpool, but elsewhere, than the figures indicate, because the very close attention paid to the disease of recent years lessens the likelihood of cases escaping observation, and deaths of phthisical persons, even although they are due actually to some other cause, will be ascribed primarily to phthisis. This tendency will probably increase in the future. From the same cause more complete diagnosis

will bring to light a larger proportion of cases, many of which without such careful attention might have escaped observation. This will mean, therefore, an apparently larger volume of cases to be dealt with. More accurate diagnosis means more cases reported, and statistics during the next few years will have to be studied very carefully. An apparent increase therefore may be looked for, the fact being that there is a larger proportion notified of a diminishing total number. (Page 42).

Decline in Deaths from Drinking.

The gratifying experience of a further decline of deaths from excessive drinking is again to be recorded.

Facing page 66 will be seen a chart showing the number of deaths certified from alcoholism during each of the last ten years, and of inquests in which juries have returned verdicts that death was due to this cause, and it will be seen that last year the deaths of males were less than half the number that they were ten years ago, whilst the deaths of females are less than one-third. The chart does not take cognizance of deaths ascribed to delirium tremens, cirrhosis, fatal accidents to drunken persons, manslaughter in which either the person assaulted or the assailant, or both, were under the influence of drink, nor of suicide whilst under the influence of drink; generally speaking, these bear a proportion to the ordinary inquest cases. (Pages 66 and 67).

Evil of Excessive Drinking.

It has already been pointed out in previous Reports that the chief adverse influence upon the public health, of excessive drinking is indirect; it is reflected in high infant mortality, neglect of, and cruelty to children; the waste in drink of money which ought to be spent on the necessaries of life is, apart from actual drunkenness, a prolific source of injury to the public health, accentuating poverty and the miseries and suffering which follow in its train.

Child Neglect.

As a result of following to their homes very neglected children, who unfortunately are still so frequently to be seen about the streets, the Female Staff in many instances have been enabled to deal effectively with this form of neglect, which almost invariably is associated with the drunkenness of the mother.

During the year a very large share, indeed the greater part, of the time of the Female Inspectors has again been taken up with sanitary work associated directly or indirectly with school children. (Page 102).

Midwives Act, 1902.

Arrangements by which the Council have agreed to pay a fee to any medical man called in an emergency, under the Midwives Act, has worked well. A proposal to transfer the obligation from the Sanitary Authority to the Poor Law Authority would result in pauperising the unfortunate woman whose confinement was attended with such danger as to necessitate the presence of a medical man. (Page 123).

Women's Common Lodging-houses.

The subject of Common Lodging-houses for Women was dealt with fully in the Report for 1909, and does not call for any considerable comment now. (Page 87).

Abattoirs.

The Special Committee which was re-appointed on November 9th, 1909, to consider the important subject of the Meat Markets, the slaughtering of animals, and of the kindred trades associated therewith, continued during the year 1910 to give the subject very careful consideration, and they sent a Deputation, consisting of six of their members, together with certain of the officials, to visit Markets and Abattoirs in various towns, not only in this country, but on the Continent.

The Deputation were much impressed with the admirable arrangements which are met with in every German City in connection with the industries concerned, and they fully appreciated the immense advantages, not only from the point of view of trade facilities, but of what is not of less consequence, the removal of difficulties in the way of inspection and examination of meat.*

It has for many years been recognised that the conditions under which the slaughtering of animals is carried on in the City is unsatisfactory, not only on account of the difficulty of supervision, but of the injury done to the health of the City by the unavoidable pollution of the air, and fouling of surfaces, most of the slaughtering places being in densely populated localities.

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* As a result of their inquiries and investigations, the Committee made the following recommendations to the City Council on 23rd January, 1911, viz :—

(1) That the Corporation should erect, own and work, the Live Cattle Markets, Abattoirs, Dead Meat Markets, and provide accommodation for the Allied Trades.
(2) That it is advisable for all the undertakings to be concentrated on one site.
(3) That such site should be in close proximity to the Docks and various Railways.
(4) That the best practicable site for such purpose is the Love Lane site, which contains $13\frac{1}{2}$ acres.
(5) That it is not desirable to rescind the resolution of the Council of the 18th July, 1900, disapproving of the Trowbridge Street site, or the neighbourhood, as the site of an Abattoir.
(6) That as the Leases of the Abattoir Company will expire on 31st December, 1911, it is not worth while ascertaining upon what terms (if any) the Company are prepared to sell their undertaking.

There are at the present time 21 places where animals are slaughtered, and they all of them contravene the bye-laws of the Local Government Board of 1877, and the Corporation bye-laws of 1906. These 21 places consist of the leased premises in Trowbridge Street, six registered slaughterhouses which have been in use prior to the passing of the Liverpool Sanitary Amendment Act, and 14 are licensed slaughterhouses.

The Health Committee have consistently refused to renew licenses which have fallen in, and since 1890, the year in which the Council refused to renew the leases of the Trowbridge Street premises, slaughtering in 21 licensed premises has ceased. Between 1890 and 1896 six licenses were refused on account of the situation of the premises. Consequent upon these refusals several licenses were surrendered without application for renewal during the next few years, but whenever an application for renewal was made, it was refused on the grounds of the unsuitability of the situation; the reasons in fact which guided the Committee were precisely those which guided the Council in refusing to renew the Trowbridge Street leases.

In April, 1890, the City Council refused to renew the lease to the Abattoir Company on the ground that the site was wholly unsuitable, and from this year onward the Health Committee refused to renew any of the licenses of private slaughterhouses on the same grounds that the Council refused to renew the lease to the Abattoir Company, viz., the unsuitability of the sites.

Appeals under the Housing of the Working Classes Acts.

During the year two appeals were made to the Local Government Board under the provisions of the Housing of the Working Classes Acts against closing orders which had been made by the Committee; one related to property situate and being No. 5 in 8 Court, Burlington Street, and the other in respect to a number of insanitary houses numbered 2, 4, 6, 8, 10, 12 in 6 Court Great Homer Street.

In both cases the decision of the Committee was upheld, and the property ordered to be closed.

E. W. HOPE,
Medical Officer of Health

Public Health Department,
Municipal Offices,
Liverpool, 1st June, 1911.

STATISTICS

RELATING TO

BIRTHS, DEATHS, AND CAUSES OF DEATH, &c.,

ZYMOTIC DISEASES AND THEIR INCIDENCE.

SUMMARY

OF

VITAL STATISTICS FOR 1910.

Area of City	**16,619**	**Acres.** (26 square miles).
Population	**743,295**	
*Density	**44·7**	**Persons per Acre.**
*Births	**23,054,**	**Birth-rate 31·0.**
*Deaths	**13,343,**	**Death-rate 17·9.**
*Infantile Mortality	**3,216**	**Deaths under one year, or 139 per 1,000 Births.**
Zymotic Death-rate (7 principal Zymotic Diseases)	**2·3**	**per 1,000.**
Phthisis Death-rate	**1·3**	**per 1,000.**

* For variations in different districts see plan-map in the Appendix.

BIRTHS.

During the fifty-two weeks of the year, terminating on Saturday, December 31st, 1910, the returns of the local registrars recorded 23,054 births within the City. Of the total births 11,785 were males and 11,269 were females. The number of illegitimate births was 829 or 3·5 per cent. of the total births.

The birth-rate in the City of Liverpool is considerably above the average of the great towns, as well as of England and Wales taken as a whole (see diagram, page 6). During 1910 the birth-rate was 31·0 per 1,000 of the population; the average of the previous five years (1905-1909) being 32·7. The rates are calculated upon the corrected population as ascertained by the Census Returns of 1901 and 1911.

The variations in the birth-rate, and the distribution of the births in the different wards and districts of the city, are indicated upon the accompanying plan-map (see Appendix), and have also been arranged in the following tables:—

BIRTHS.

Districts.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		1910.		Corrected Average Rate per 1000 during the 5 years 1905-1909.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Births.	Rate per 1000	
Scotland	246	257	264	232	236	256	191	214	1896	40·2	42·6
*Exchange	132	151	155	129	138	122	132	102	1061	28·1	30·2
†Abercromby	251	248	227	233	217	223	227	222	1848	40·7	36·9
Everton	512	526	506	534	499	466	491	480	4014	33·1	35·5
Kirkdale	299	267	303	231	255	245	290	230	2120	31·3	33·4
West Derby—West	338	320	359	340	354	313	300	307	2631	30·7	32·3
Toxteth	402	378	414	395	383	389	383	351	3095	30·3	32·4
Walton	287	278	277	274	301	264	275	267	2223	30·1	30·9
West Derby—East	185	167	210	217	209	210	188	198	1584	25·7	28·9
Wavertree	144	145	149	129	153	135	141	116	1112	28.7	31·9
Toxteth—East (late Toxteth Rural)	73	74	83	80	75	79	101	83	648	18·9	20·6
Garston	104	83	95	87	87	93	81	66	696	29·8	33·5
Fazakerley	17	16	18	11	18	17	10	19	126	26·3	30·8
City	2990	2910	3060	2892	2925	2812	2810	2655	23054	31·0	32·7

The continued high birth-rate in the older and poorer parts of the city is a noticeable feature, being in some instances higher than in the rapidly-extending areas in the suburbs.

In the district known as Sefton Park, the large proportion of domestic employés partially accounts for the low birth-rate.

*The large number of inmates of registered Common Lodging-houses and Model Lodging-houses explains in a measure the apparently low birth-rate in Exchange.

† The Maternity Hospital, and the Brownlow Hill Workhouse Infirmary are situated in Abercromby District. The birth-rate of the District, apart from births in these institutions, is 20·7.

The following table shows the population, number of births, and the corrected birth-rate per 1,000 during the last twenty-five years:—

Year.	Population.	No. of Births.	Rate per 1,000.
1886	534,088	19,559	36·6
1887	530,649	18,414	34·7
1888	527,233	17,777	33·7
1889	523,838	17,676	33·7
1890	520,466	17,592	33·8
1891	518,302	17,832	34·4
1892	519,590	17,758	34·2
1893	520,882	18,328	35·2
1894	522,178	17,893	34·3
*1895	652,523	22,006	33·7
1896	658,050	21,943	33·3
1897	663,633	22,280	33·6
1898	669,243	22,227	33·2
1899	674,912	22,488	33·3
1900	680,628	22,762	33·4
1901	686,332	21,980	32·0
** 1902	707,027	24,283	34·2
1903	710,874	23,910	33·6
1904	714,743	24,278	33·9
*** 1905	721,864	24,350	33·7
1906	726,100	24,123	33·2
1907	730,361	23,654	32·3
1908	734,648	23,891	32·5
1909	738,960	23,591	31·9
1910	743,295	23,054	31·0

The foregoing table shows the decrease in the birth-rate during the last 25 years. This decrease has, however, been even more pronounced in other parts of the country, and notwithstanding the decline in Liverpool, the birth-rate in this city is still the highest of the towns having a population of more than 200,000.

The rates have been calculated upon the corrected population as ascertained by the Census Returns of 1891, 1901, and 1911.

* City area extended, a population of 129,045 included.

** Garston included with a population of 17,289.

*** Fazakerley included with a population of 2,892.

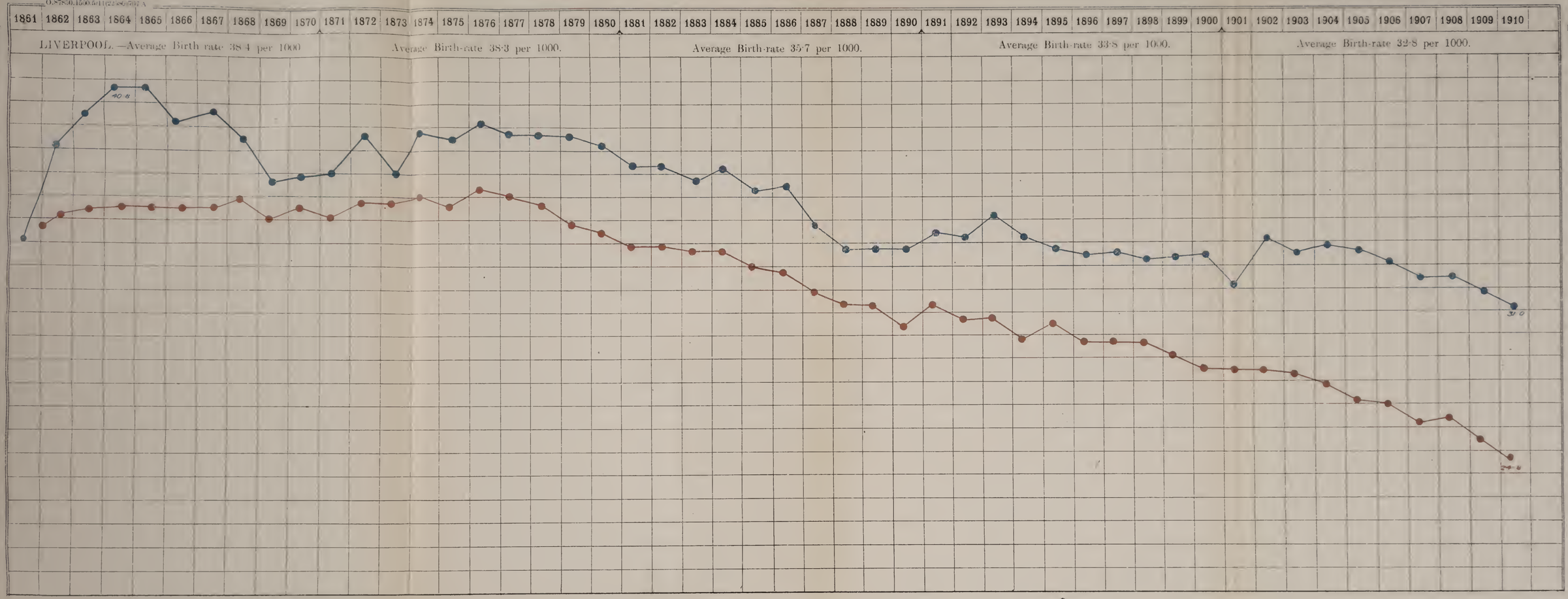
The following table shows the *natural* increase or decrease of population, that is, the increase or decrease in the number of births as compared with the number of deaths during the year 1910, in the several districts of the city. In only one district, viz., Exchange, is any decrease shown; the nett result in the city showing an increase of births over deaths of 9,711.

Districts.	Population.	Births.	Deaths.	Number of Births over Deaths.	Number of Deaths over Births.
Scotland	47,225	1,896	1,424	472	—
Exchange	37,887	1,061	1,098	—	37
Abercromby	45,318	1,848	855	993	—
Everton	120,938	4,014	2,381	1,633	—
Kirkdale	67,710	2,120	1,288	832	—
West Derby—West	85,624	2,631	1,478	1,153	–
Toxteth	102,057	3,095	1,888	1,207	—
Walton	73,890	2,223	894	1,329	—
West Derby—East	61,602	1,584	832	752	—
Wavertree	38,721	1,112	473	639	—
Toxteth—East ... ... (late Toxteth Rural)	34,210	648	387	261	—
Garston	23,326	696	304	392	—
Fazakerley	4,787	126	41	85	—
City	743,295	23,054	13,343	9,711	—
Deaths of persons brought into Hospitals, Workhouses, Nursing Homes, &c., from outside the City	—	—	574	—	—
Total ...	743,295	23,054	13,917	—	—

BIRTH RATE, 1861-1910.

The BLUE line denotes the Birth Rate of Liverpool.

The RED " " " " " " England and Wales.



* City Area extended



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CITY OF LIVERPOOL. DEATH RATE, 1861-1910.

Death-rate per 1000.

The figures indicating the rates have been corrected upon the various Census Returns.

Average Death-rate 32·5 per 1000.

Average Death-rate 28·5 per 1000.

Average Death-rate 26·1 per 1000.

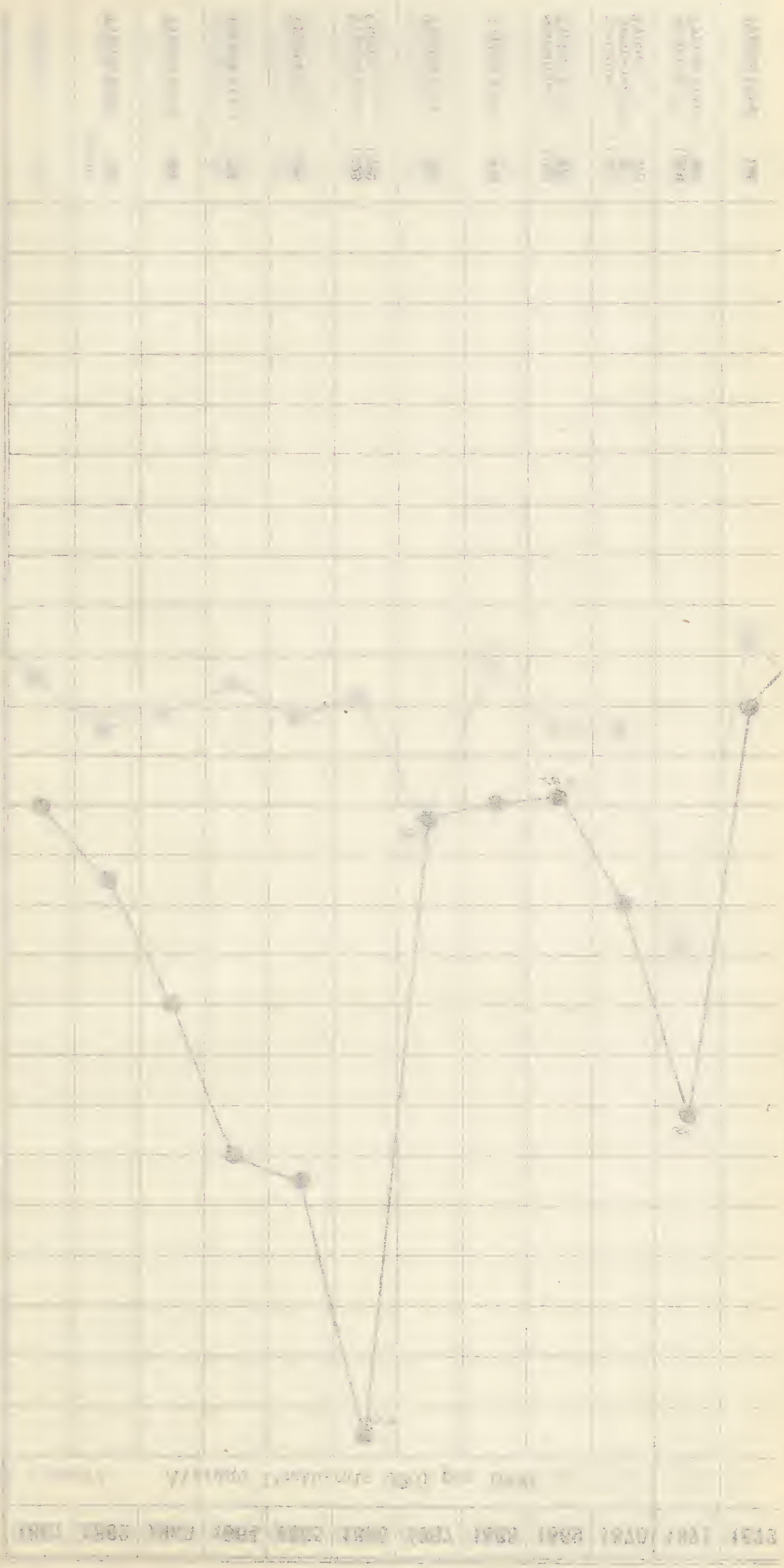
Average Death-rate 23·9 per 1000

Average Death-rate 20·0 per 1000.

1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Deaths																																																	
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Typhus Fever 2,396																																																
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Typhus Fever 676																																																
Typhus Fever 475																																																
Scarlatina 1,019 Typhus Fever 175																																																
Scarlatina 1,278 Typhus Fever 455 Typhus 218																																																
Smallpox 1,919 Typhus Fever 823																																																
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Scarlatina 1,911 Typhus Fever 172																																																
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Influenza 247 Lung Diseases 5,055●																																																
Diarrhœa 886 Lung Diseases 4,316●																																																
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Diarrhœa 1,158 Influenza 908 Lung Diseases 5,141●																																																
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City Area extended.																																																
Diarrhœa 1,785 Measles 696																																																
Diarrhœa 1,208 Measles 506 Whooping Cough 302																																															

●Including Phthisis

The figures indicating the rates have been corrected upon the various Census Returns.



DEATHS.

The total death-rate of the city during the year was 17·9 per 1,000, the lowest recorded in Liverpool; the average rate of the ten years following the extension of the city boundaries (1896-1905) was 21·8 and that of the last five years (1906-1910) was 19·0. The deaths in public institutions, nursing homes, &c., of 574 non-residents, equal to 0·7 per 1,000, have been eliminated from the total deaths.

On comparing the death-rate of one locality with that of another, it is necessary, before any correct conclusions can be drawn from the comparison, to ascertain whether the populations of the two localities are comparable in point of age; if they are not, certain corrections must be made. Quite apart from conditions of sanitation, mortality varies widely at different age-periods, as the next table shows; consequently the death-rate of the community is largely influenced by the proportions living at each age-period; the effect of a high birth-rate in raising the crude death-rate is well seen by the table, which also indicates plainly enough how the crude returns are modified if there happens to be an unusual proportion of the population at any one age-period. A hospital for foundlings, or a home for aged people, will have a very different influence upon the mortality returns of the district than a school containing an equal number of boys from 10 to 15 years of age.

If, for example, we could conceive that the whole population of Liverpool consisted of persons between the ages of 20 and 30, the death-rate last year would have been 4·1 per 1,000; if, on the other hand, we could conceive that it consisted entirely of people above 60 years, the death-rate would be 75·7 per 1,000. It is plain that any variation in the *proportions* living at the respective age-periods would affect the death-rate, and this with absolutely no change whatever in the condition of municipal sanitation. These proportions, however, vary very slowly and very slightly year by year in each district, so that yearly comparisons of the mortality-rate of the same district may be fairly made, but one district must not be put into comparison with another unless the conditions of each are known, and the necessary corrections made.

THE FOLLOWING TABLE SHOWS THE ANNUAL RATE OF MORTALITY PER 1,000 AT EACH OF TWELVE AGE-PERIODS DURING LAST YEAR IN LIVERPOOL, AS WELL AS THE TOTAL NUMBER OF DEATHS.

THE DIFFERENCES WHICH THE FIGURES SHOW ARE VERY STRIKING:—

1910.	* Under 1 year.	1 to 2	2 to 5	5 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 and up-wards.	Total at all Ages.
Rate of Mortality per 1,000 living at ages indicated.	139·4	70·4	17·2	4·7	2·7	4·1	7·7	13·9	26·9	54·9	113·7	174·6	17·9
Total Number of Deaths at each Age Period.	3216	1275	901	383	412	592	827	1089	1381	1653	1236	378	13343
Approximate Population	20956	18093	52199	80055	148074	144334	107337	77977	51228	30109	10869	2164	743295

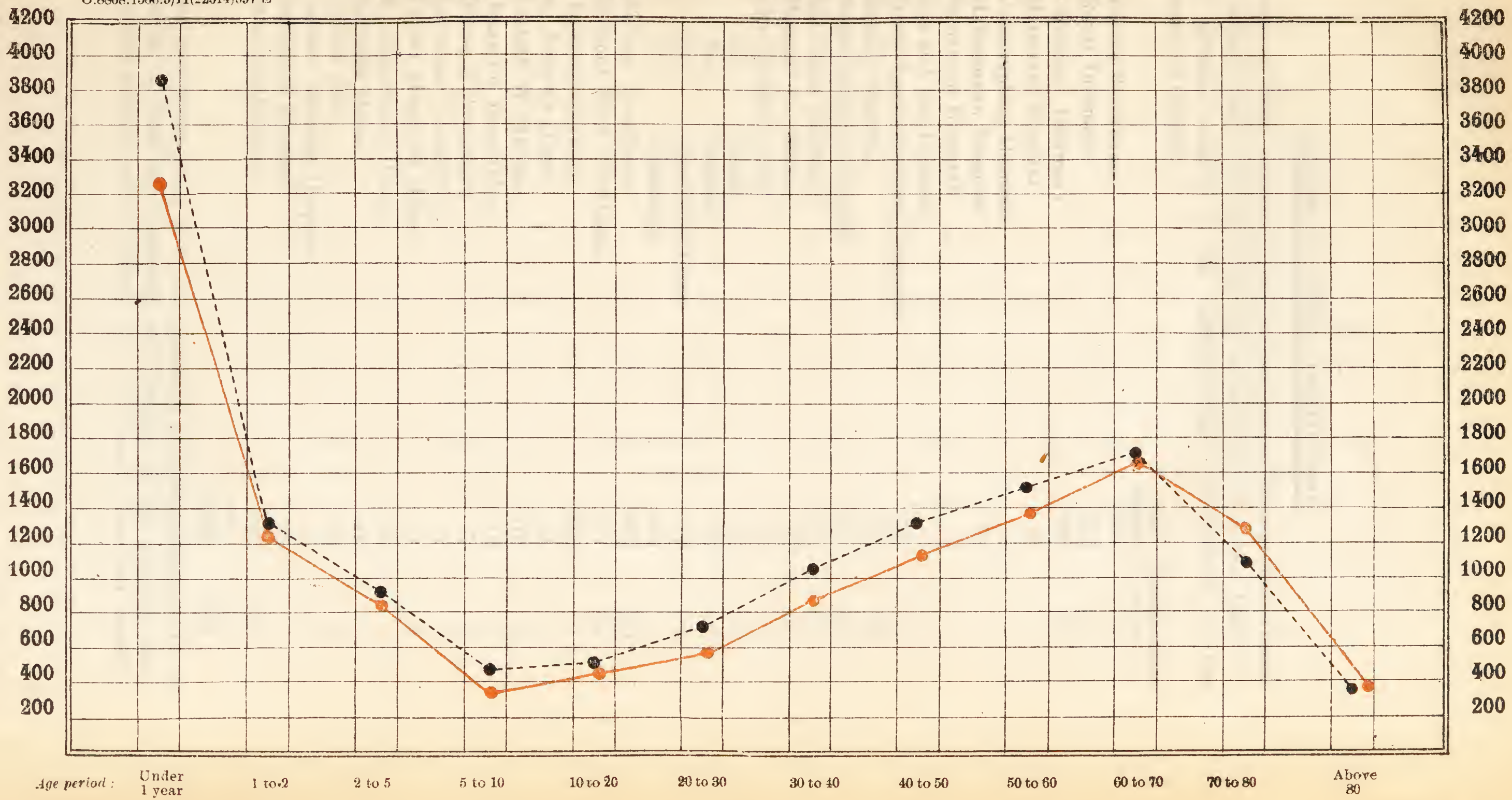
(See Comparative Chart on next page).

* Column I. indicates the rate of mortality under one year per 1,000 births during the year.

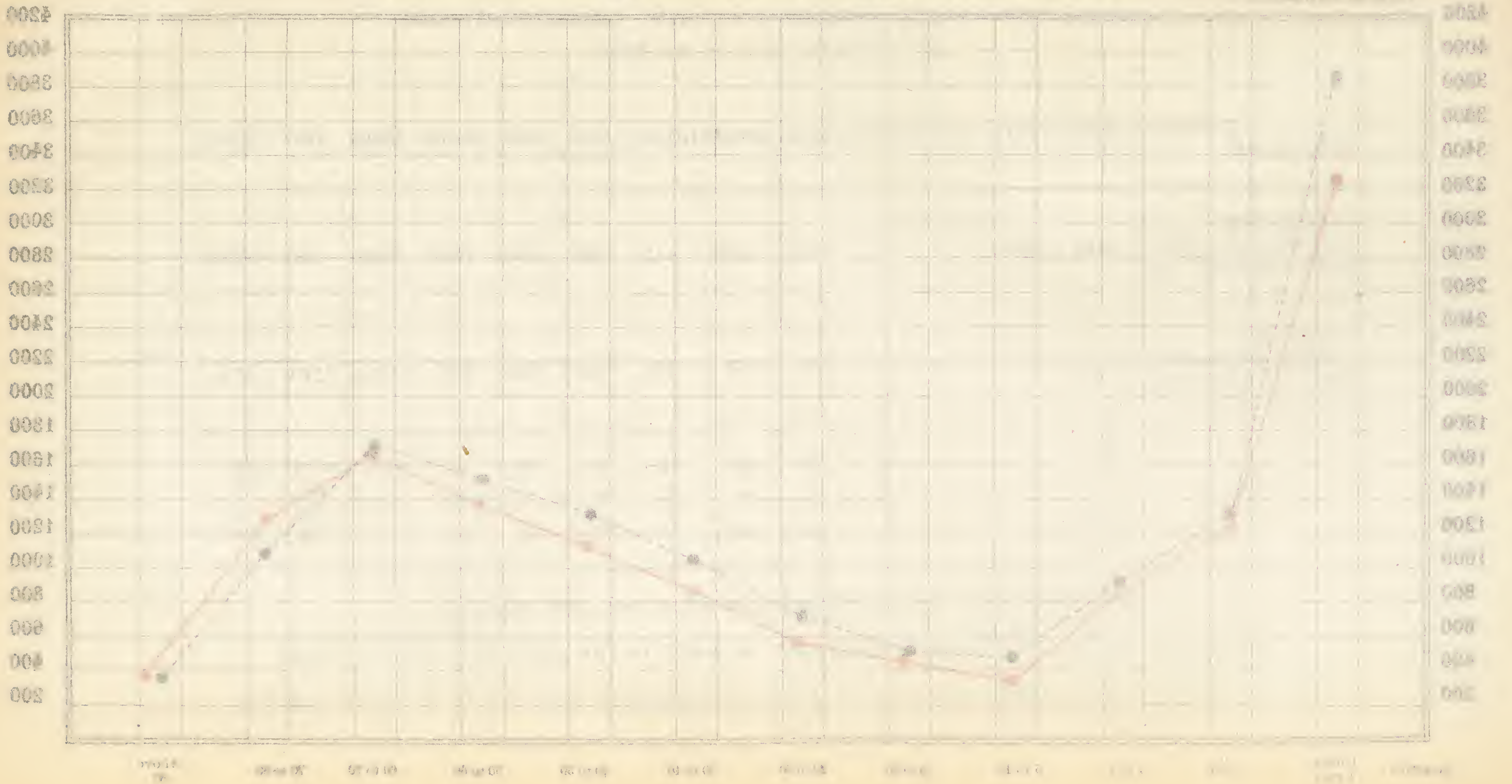
CITY OF LIVERPOOL.

Comparative view of the total number of Deaths at twelve different age periods during the year 1910 shown in Red, the average for the preceding Ten years (1900-1909), being shown in the Black dotted line.

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Comparative view of the total number of Deaths at twelve different age periods during the year 1910 shown in Red, the average for the preceding Ten years (1900-1909) being shown in the Black dotted line.



DEATHS IN PUBLIC INSTITUTIONS

Deaths in Public Institutions are referred to the Districts from whence the patients came, but the following table shows that the deaths of 5,274 persons occurred in the undermentioned Institutions for the treatment of the sick:—

	Total Deaths.	Non-Residents of City.
Parish Workhouse	1017	7
Royal Infirmary	313	105
Children's Infirmary	299	35
Maternity Hospital	31	5
Consumption Hospital	8	—
Hahnemann Hospital	28	—
Samaritan Hospital	5	—
Eye and Ear Infirmary	4	2
David Lewis Northern Hospital	185	23
Stanley Hospital	157	26
Royal Southern Hospital	187	25
Mill Road Infirmary	787	68
Hospital for Women	19	13
City Hospital North	93	7
Do. South	46	2
Do. Parkhill	40	1
Do. East, Mill Lane	77	1
Do. Fazakerley	155	7
Walton Workhouse	902	169
Belmont Road Workhouse	147	27
Highfield Infirmary	189	1
St. Joseph's Home	31	5
Toxteth Workhouse	375	2
Home for Incurables	12	5
House of Providence	7	5
Tuebrook Villa Asylum	7	3
Turner Memorial Home	11	4
St. Augustine's Home	19	2
Kirkdale Home	46	—
Walton Gaol	18	1
Garston Accident Hospital	3	—
Deysbrook Hospital	9	—
Other Institutions	47	23
	5,274	574

From the returns made as to the residences of these persons, 4,511 of the deaths in these establishments are classified in the districts from whence the patients were removed, viz.:—532 under Scotland district,

606 under Exchange district, 363 under Abercromby district, 830 under Everton, 396 under Kirkdale, 526 under West Derby (West), 568 under Toxteth, 231 under Walton, 189 under West Derby (East), 114 under Wavertree, 85 under Toxteth-East (late Toxteth Rural), 63 under Garston and 8 under Fazakerley; 574 were non-residents, who had sought relief in Liverpool Institutions, and of the remainder 189 were persons whose previous residences were unknown, and these, in the absence of definite information, have been placed in the wards in proportion to the total number of deaths.

In Liverpool the proportion of deaths which takes place in Public Institutions is larger than is the case in other towns, and the fact is an interesting one, as something may be learned of the social conditions of a locality when so large a proportion in times of sickness seek refuge in public institutions, more especially in the workhouses. Generally it implies poverty and want; but on the other hand, it may also, and no doubt does, imply that the institutions have a wide reputation, and attract sufferers to them not only from within the city, but from a distance. Probably both of these conditions exercise influence; but be that as it may, the fact remains that there is no provincial city in which so large a proportion of the deaths takes place in workhouses and hospitals.

The following table shows the percentage of deaths which have occurred in public institutions during the five years, 1906-1910, in the great towns of Birmingham, Leeds, Manchester and Liverpool:—

	1906.	1907.	1908.	1909.	1910.	Average.
Birmingham	21·8	24·6	26·0	24·8	27·1	24·8
Leeds	15·0	17·4	17·2	19·7	18·9	17·6
Manchester	24·6	26·0	26·3	29·1	28·5	26·9
Liverpool	31·6	34·5	36·2	36·5	37·8	35·3

The results of the allocation of deaths in public institutions to the districts from whence the patients had been removed, and the addition of these to the number of deaths of residents in those various districts,

are shown in the following table, from which a calculated rate of mortality per 1,000 per annum of the inhabitants has been made. The rates are calculated upon the corrected population as ascertained by the Census Returns of 1901 and 1911.

Districts.	Population.	1910.		Corrected Average Rate per 1000 during the five years 1905-1909.
		Deaths.	Rate per 1000	
Scotland	47,225	1,424	30·2	31·5
Exchange	37,887	1,098	29·0	32·3
Abercromby	45,318	855	18·8	20·2
Everton	120,938	2,381	19·6	21·1
Kirkdale	67,710	1,288	19·0	19·9
West Derby (West)	85,624	1,478	17·2	18·1
Toxteth	102,057	1,888	18·5	19·3
Walton	73,890	894	12·1	13·1
West Derby (East)	61,602	832	13·5	14·9
Wavertree	38,721	473	12·2	13·2
Toxteth (East) ... ... (late Toxteth Rural)	34,210	387	11·3	11·0
Garston...	23,326	304	13·0	15·3
Fazakerley	4,787	41	8·6	13·7
City	743,295	13,343	17·9	19·3

The District Registrars' Returns show that there were 31 deaths (23 of women and 8 of men) at the age of 90 and upwards, viz., 4 males and 4 females at 90, 3 males and 6 females at 91, 1 male and 4 females at 92, 1 female at 93, 4 females at 94, 1 female at 95, 1 female at 96, 1 female at 100, and 1 female at 102

The death-rate per 1,000 for 1910 in each of the districts of the city is indicated upon the map at the end of the volume. Scotland and Exchange districts, it must be remembered, contain a great number of common lodging-houses, some of which are resorted to by non-residents of the districts, persons of migratory habits, and the indigent and broken down persons to be met with in any seaport in which casual and unskilled labour is a feature. This class tends to swell the mortality of these two districts. Last year the rate in Scotland district was increased by nearly one per 1,000 from this cause, and in Exchange district by about three per 1,000.

The following table shows the population, number of deaths, and the corrected death-rate per 1,000 during the last twenty-five years:—

Year.	Population.	No. of Deaths.	Rate per 1,000.
1886	534,088	13,919	26·1
1887	530,649	14,006	26·4
1888	527,233	12,159	23·1
1889	523,838	13,047	24·9
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1891	518,302	13,911	26·8
1892	519,590	12,671	24·4
1893	520,882	13,919	26·7
1894	522,178	12,073	23·1
*1895	652,523	16,215	24·8
1896	658,050	14,060	21·4
1897	663,633	15,117	22·8
1898	669,243	14,853	22·2
1899	674,912	16,276	24·1
1900	680,628	15,785	23·1
1901	686,332	14,879	21·6
**1902	707,027	15,396	21·7
1903	710,874	14,240	20·0
1904	714,743	15,851	22·1
***1905	721,864	14,103	19·5
1906	726,100	15,001	20·6
1907	730,361	13,676	18·7
1908	734,648	13,930	18·9
1909	738,960	13,945	18·8
1910	743,295	13,343	17·9

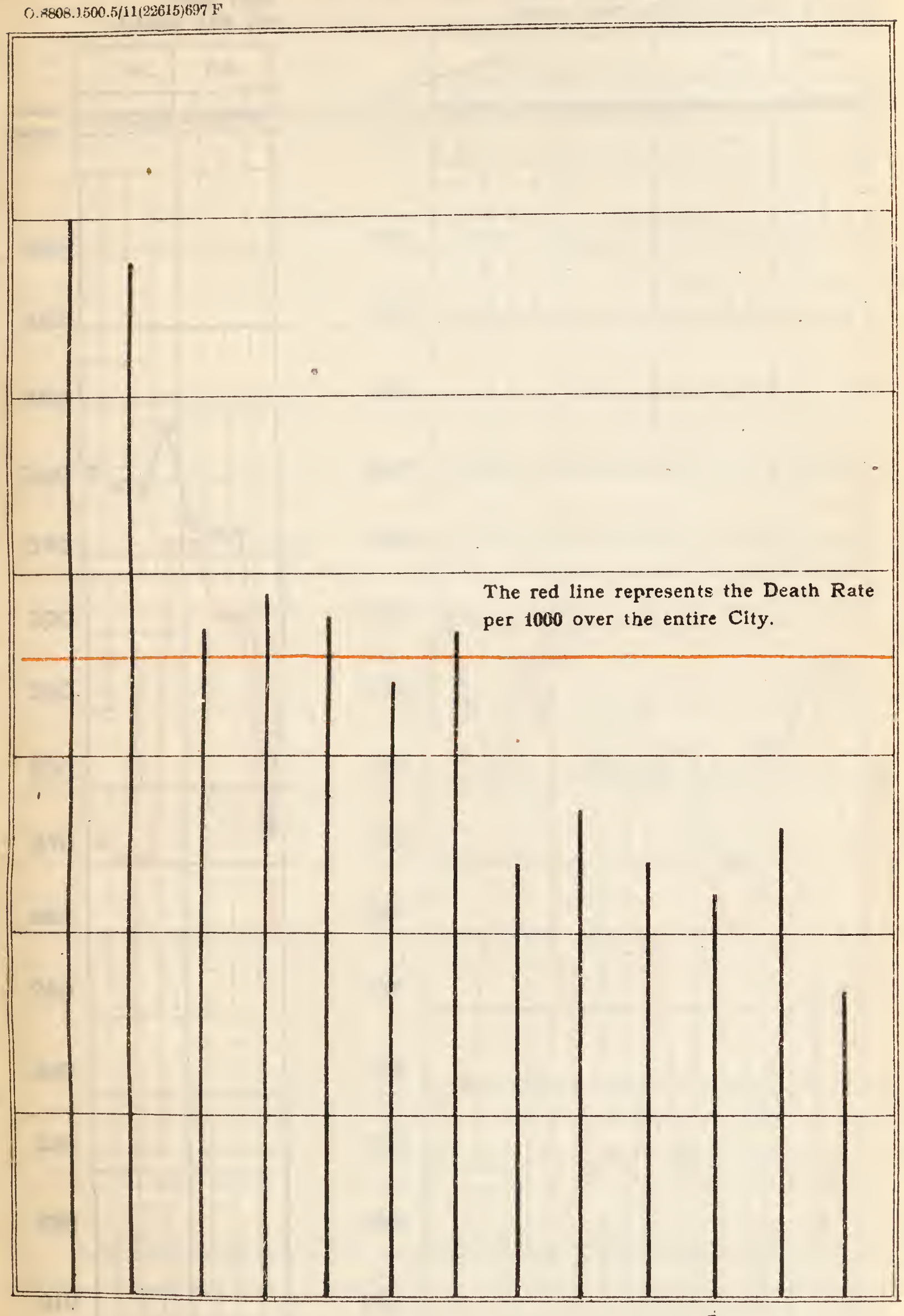
* City area extended. ** Garston included. *** Fazakerley included.

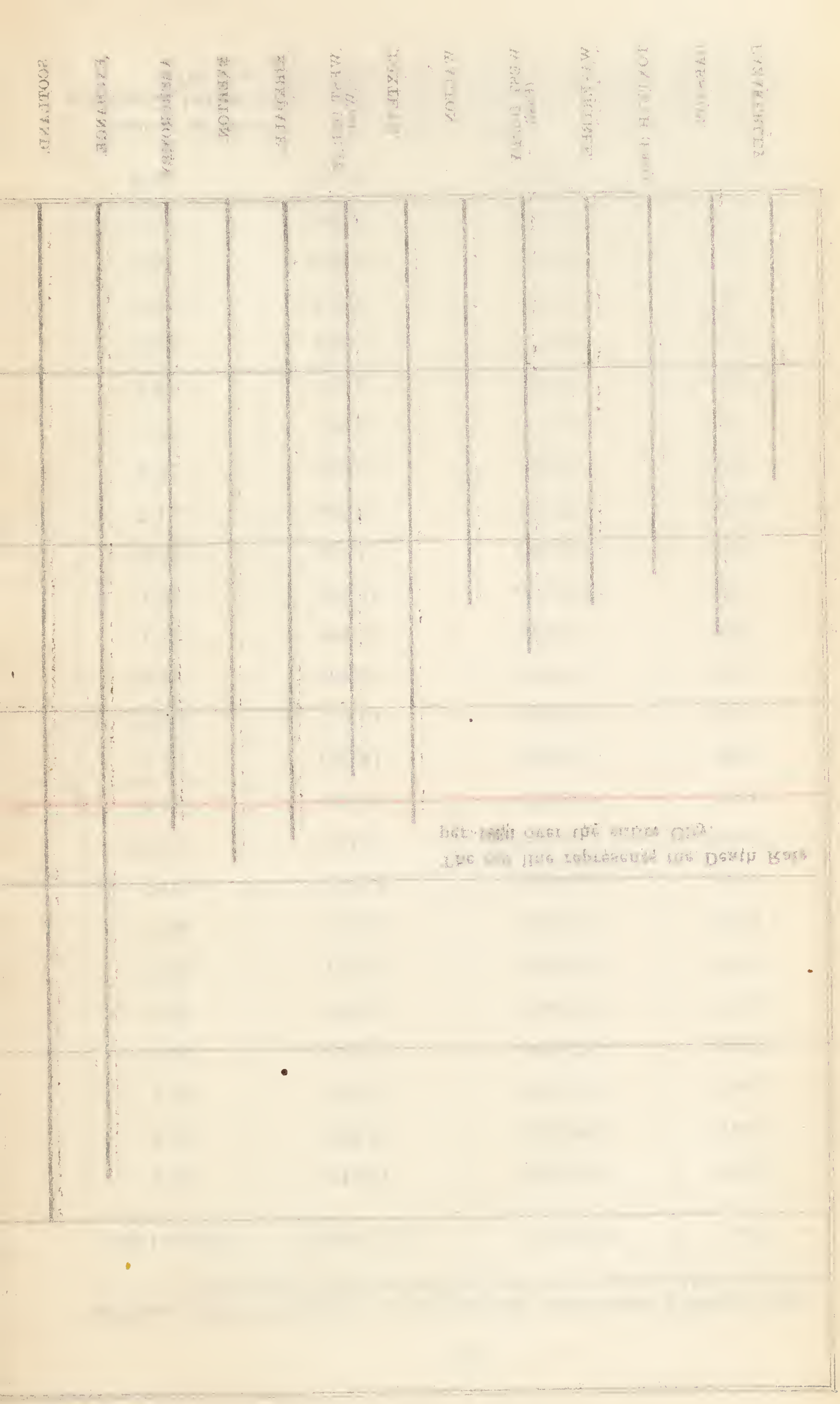
NOTE.—The rates have been calculated upon the corrected population as ascertained by the Census Returns of 1891, 1901, and 1911.

CITY OF LIVERPOOL.

Comparative view of the Death Rate per 1000 in the different districts of the City during the year 1910.

O.8808.1500.5/11(22615)697 F

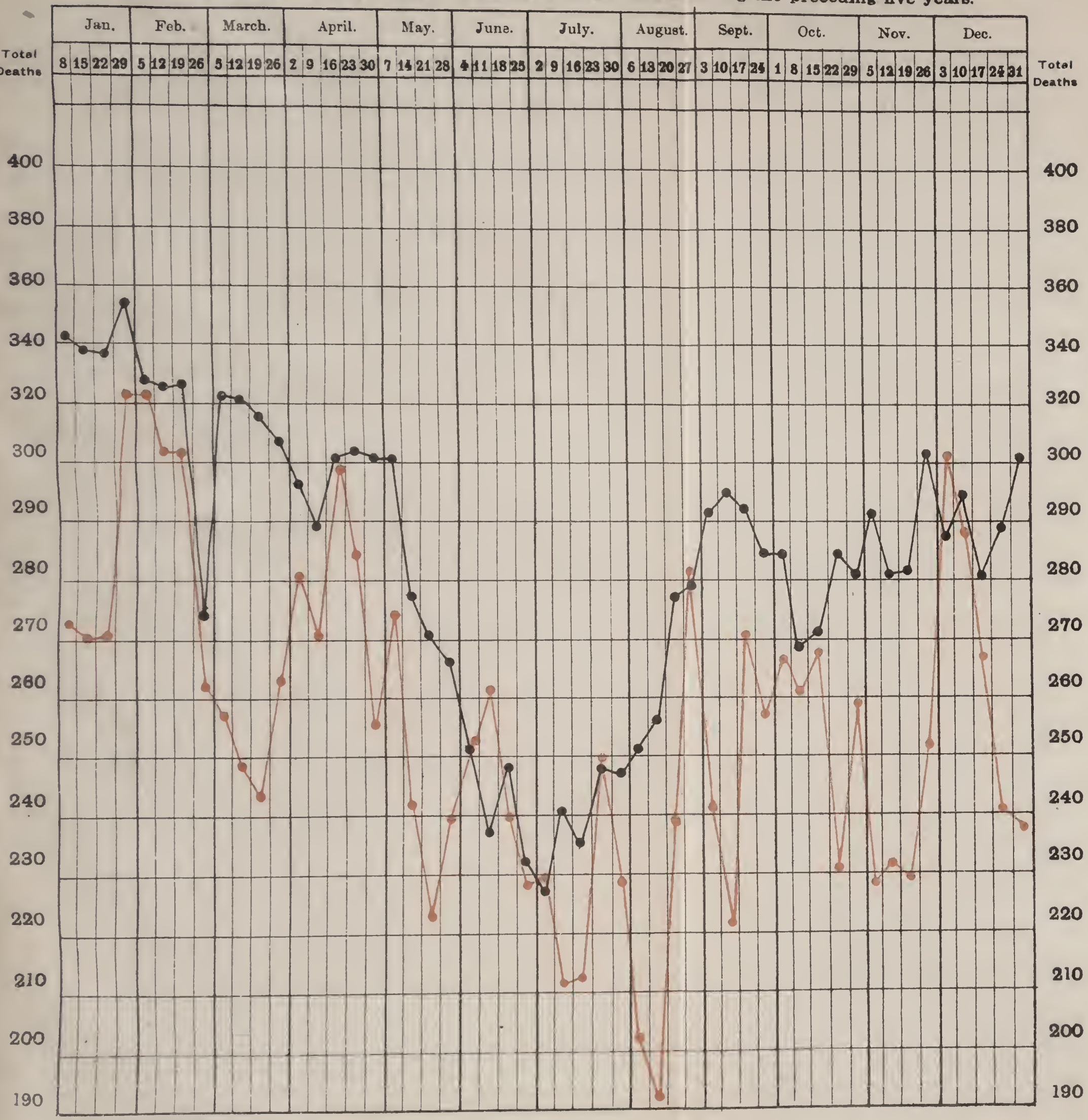




CITY OF LIVERPOOL.

COMPARATIVE MORTALITY CHART.

The Red line denotes the weekly number of Deaths from all causes during the year 1910; the Black line the average weekly number of deaths from all causes during the preceding five years.



O.8815.1500.5/11(22626)702 G

CITY OF HAVERHILL

COMPARATIVE MONTHLY

INFANTILE MORTALITY.

This important subject has been fully dealt with in previous Reports, to which reference can be made by those requiring fuller information. The last five years have shown a conspicuous diminution in infant mortality, and this decline has been maintained during 1910, the rate being 139 per 1,000 births, the lowest rate of infant mortality yet recorded.

In the poorer districts it is plain to the most casual observer that necessary care and attention are not given to infants; nothing is more common than to see the infant handed over to the custody of children or irresponsible persons, whilst the responsible guardians are engaged in some other occupation. The children of the very poor are in this way exposed to neglect and inattention which, together with improper food and scanty clothing, are reflected in the sacrifice of life.

Amongst the agencies which have been relied upon in this city to lessen the infant mortality are:—

(1) The instruction of the mothers or persons in charge of the infant. A large staff of trained Female Inspectors is employed to visit and give instruction where necessary. Many thousands of cards of instruction are distributed throughout the city. The Notification of Births Act greatly facilitates this work.

(2) Help of a somewhat similar kind is given through the midwives.

(3) For those mothers who are unable to suckle their infants a suitable food is provided at a price within the reach of all. (See page 158).

(4) Private philanthropy, by crêches, district nursing, &c., co-operates in the good work. The crêches are situated in Juvenal Street and Everton Road in the central, Wesley Street in the southern, and Beaumont Street in the eastern district of the city. These establishments afford for girls about to leave school most valuable fields for instruction in the proper management of infants and very young children. Nearly three years ago the attention of the Education Committee was called to this matter, which has received the approbation of the Infant Life Preservation Committee and of the Health Committee, but unhappily these facilities are not yet availed of for the purpose.

(5) Hospital accommodation for some of the infants suffering from measles and whooping cough, which benefits not only the sufferer, but removes the source of infection.

(6) Greater municipal cleanliness; improvements in scavenging and cleansing, and the removal of all refuse likely to harbour flies; the substitution of appropriate ashbins for large and foul ashpits, and the provision of an unrestricted water supply.

(7) The removal of insanitary areas, and the erection of proper dwellings in their place.

It must never be forgotten that, as regards feeding and care, whatever it is in the power of the municipality to do in regard to the preservation of infant life is insignificant when compared with what it is in the power of the mother to do. If the mother will suckle the infant, its risks are slight. If she will not do so, the Corporation proves but a poor foster-mother, owing to the absolute impossibility of fulfilling the duties which only the mother herself can discharge.

Infant mortality varies widely, not only in different towns, but in the various wards or districts of the same towns. Poverty or riches, sanitary or insanitary conditions, occupation or the want of it, high birth rate or low, all play their part in bringing these variations about. But every extended inquiry into the intricate subject of infant mortality brings to light the fact that parents living approximately under the same social and sanitary conditions have such varying success in rearing their infants that the personal factor deserves a careful study.

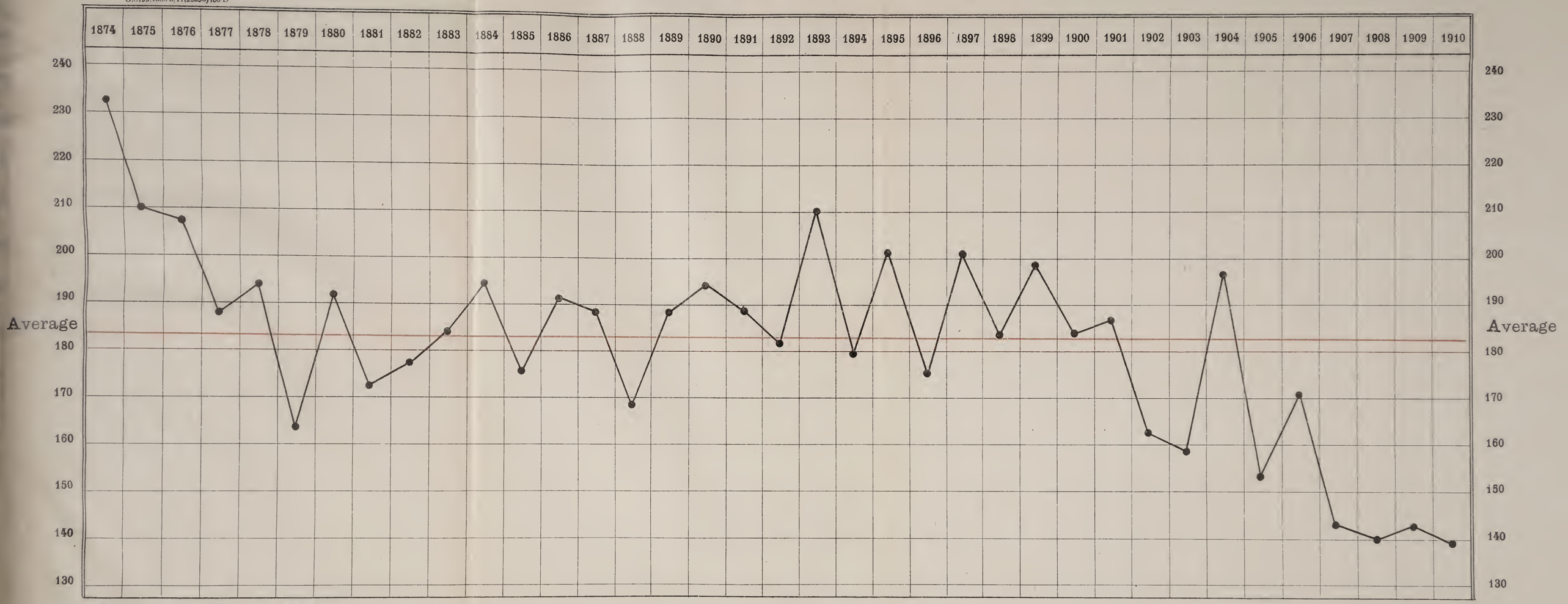
The highest infant mortality is always reached in the summer and early autumn, the cause of death being ascribed to diarrhœa. The subject has been carefully investigated bacteriologically, but no organism so far has been identified solely as the cause. The contents of some of the foul feeding bottles have been subjected to analysis, with results showing that this liquid was of an extremely dangerous character, and certain samples have proved so highly virulent as to kill the animal inoculated with it within 48 hours.

The Medical Officer has for many years pointed out that milk, as nature intended it to be given to infants, is never once exposed to the air, that it passes directly at the time of the manufacture in the gland to the stomach; its composition, temperature and mixture, adapt it to the needs of the offspring; it has neither abstractions, adulterations, preservatives nor uncleanliness; it is, moreover, bacteriologically clean and pure. Nothing the municipality can do can equal this.

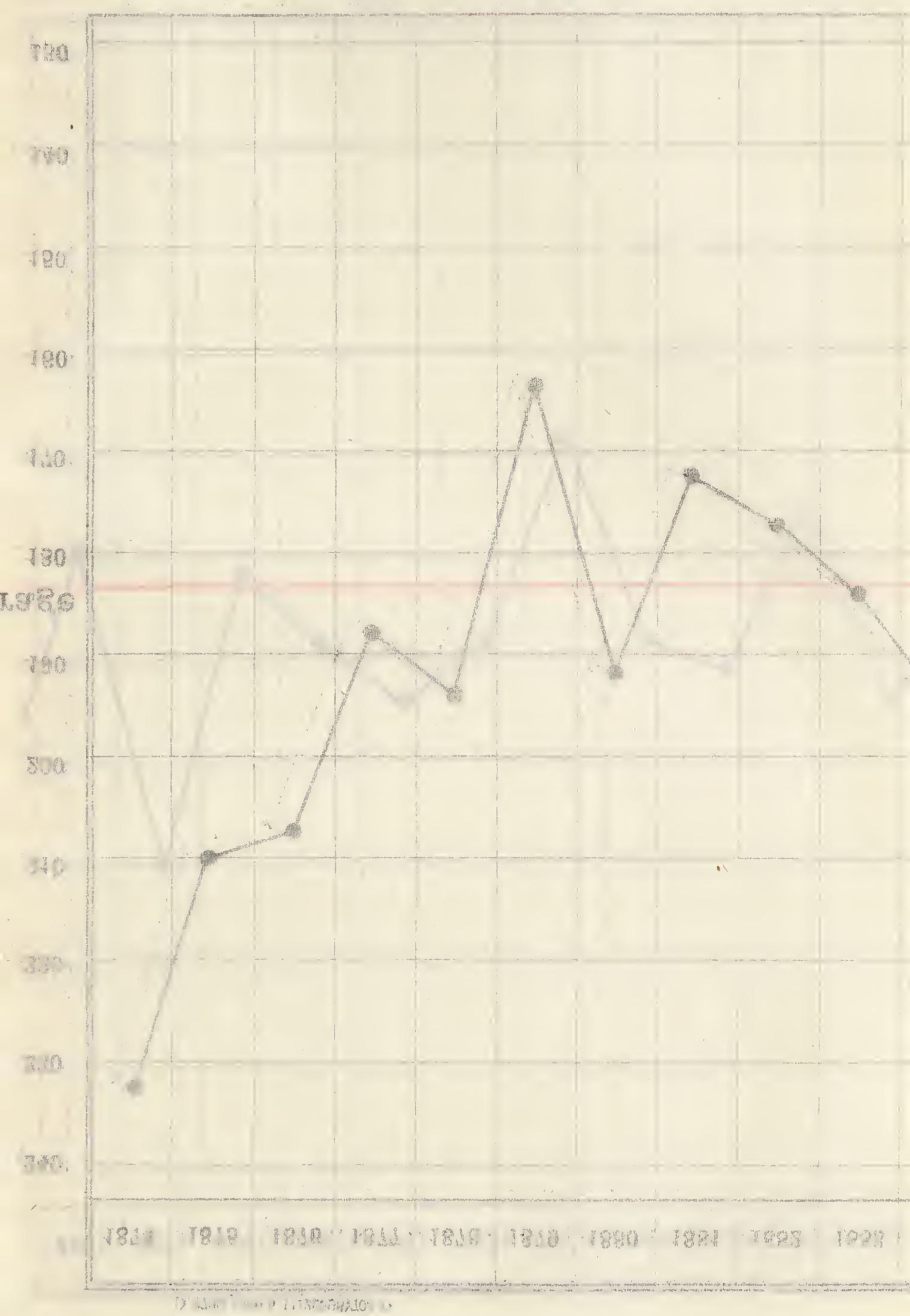
CITY OF LIVERPOOL.

Infant Mortality per 1000 Births 1874—1910.

O.8799.1500 5/11(22598)705 D



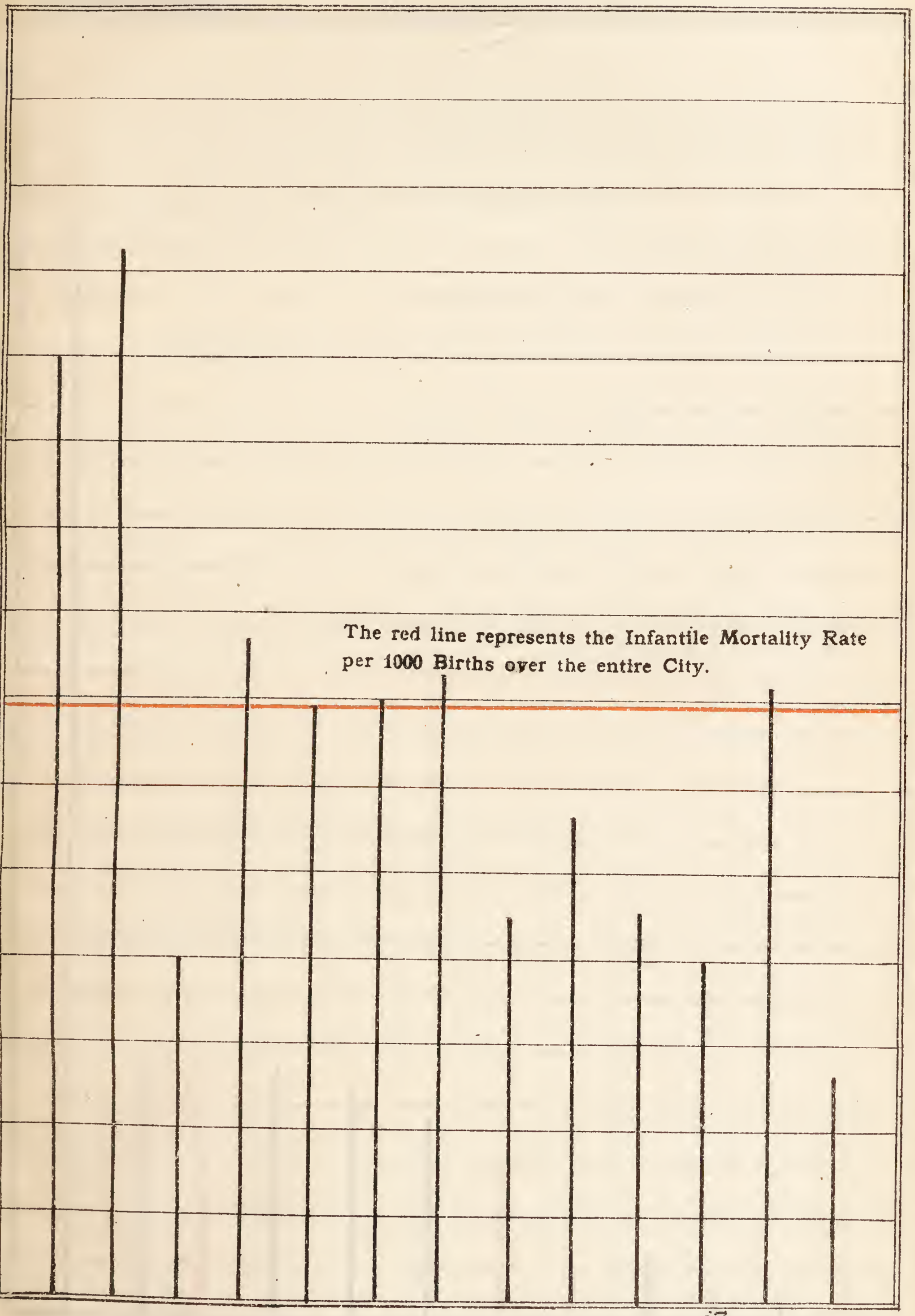
Average for 37 years 184.



CITY OF LIVERPOOL.

Comparative view of the Infantile Mortality per 1000 Births in the different districts of the City during the year 1910.

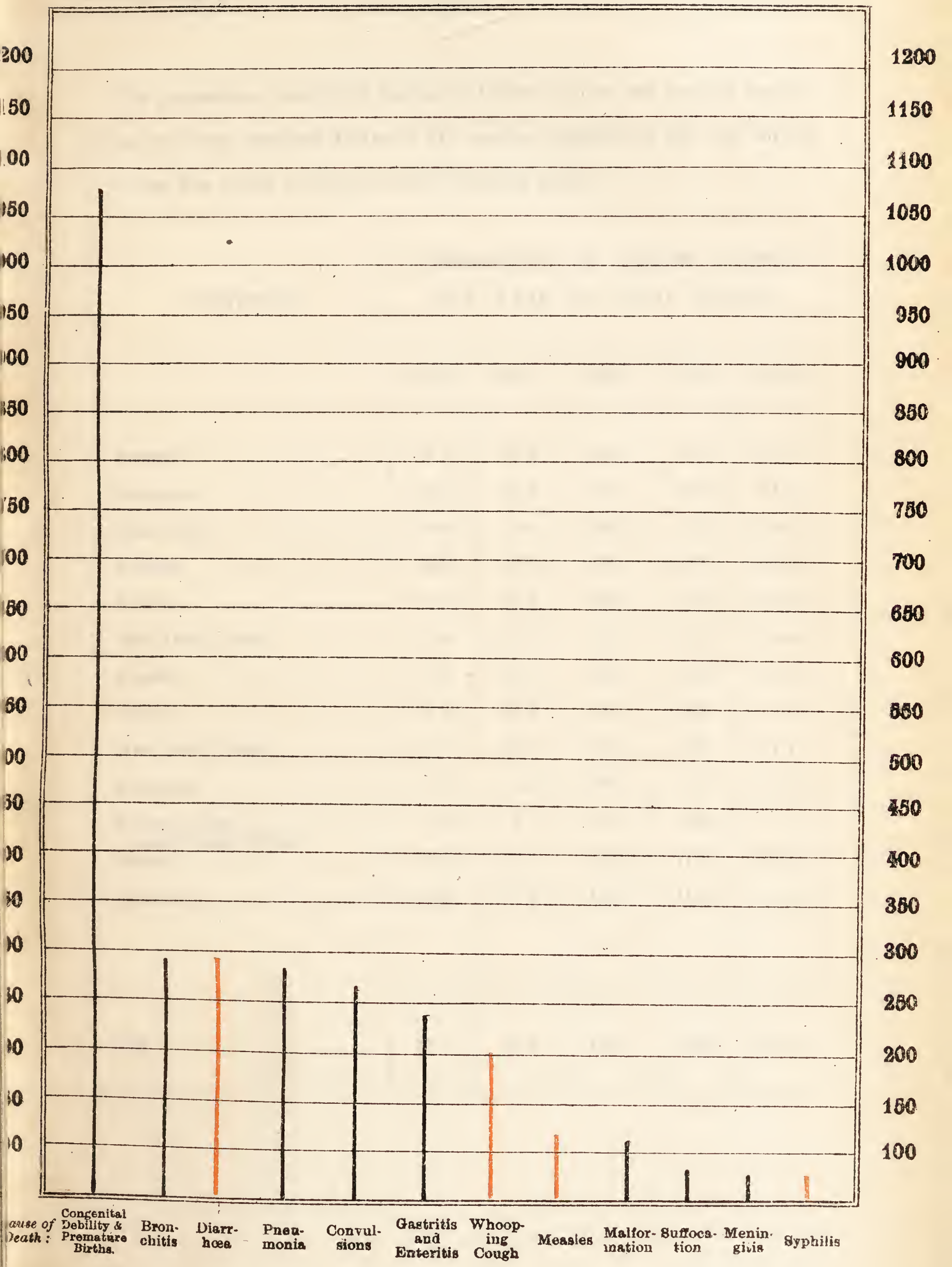
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CITY OF LIVERPOOL.

Comparative view of twelve of the principal causes of Infantile Mortality (below 1 year of age) during the year 1910.

O.8808.1500.5/11(22719)697 N



The proportion which the deaths of infants under one year of age has borne to every hundred births in the various districts of the city during the last five years is shown in the following table:—

DISTRICTS.	PERCENTAGE OF DEATHS UNDER ONE YEAR TO TOTAL BIRTHS.				
	1906.	1907.	1908.	1909.	1910.
Scotland	24·7	24·0	20·9	21·2	22·0
Exchange	26·0	25·0	24·9	25·2	24·6
Abercromby	12·0	9·4	10·6	8·3	8·0
Everton	20·3	15·0	16·0	15·7	15·6
Kirkdale	16·2	15·2	14·6	14·8	13·9
West Derby (West)	15·4	13·6	12·8	13·8	14·0
Toxteth	17·9	14·6	14·0	14·6	14·5
Walton	12·2	10·8	8·7	10·8	8·9
West Derby (East)	14·1	10·3	11·0	12·3	11·7
Wavertree	12·7	9·9	10·4	8·8	9·0
Toxteth—East (late Toxteth Rural)	9·0	7·7	7·0	9·6	8·1
Garston	13·2	14·5	11·0	11·3	14·3
Fazakerley	10·0	3·9	11·4	14·0	5·5
City	17·1	14·3	14·0	14·3	13·9

CAUSES OF DEATH.

Full details as to the causes of death are set forth in table *F* in the Appendix; in this table the age at which each death took place and the district in which it occurred will also be found.

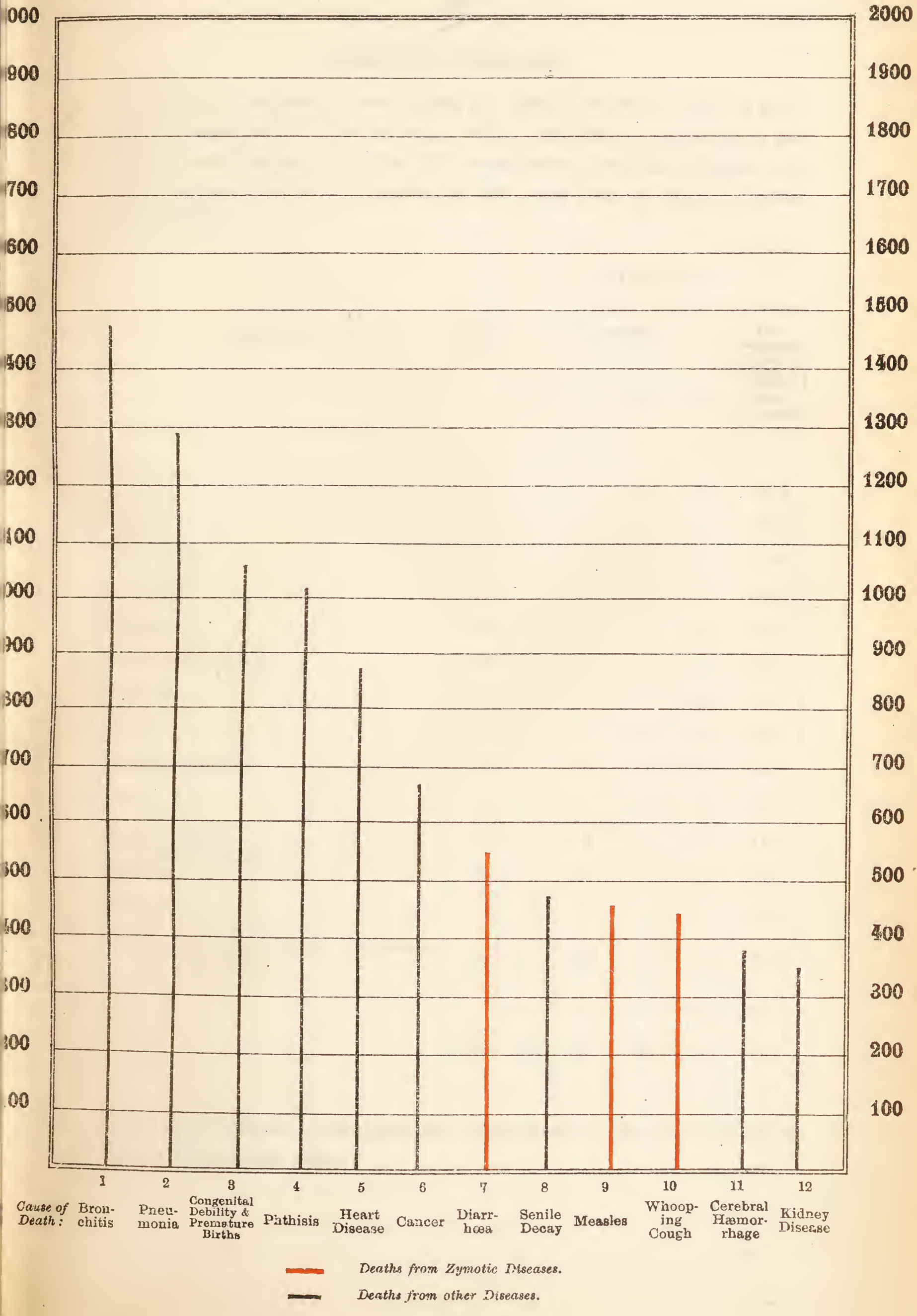
The following table gives a classification of the causes of death during the four quarters of the year, grouped under 16 classes:—

CLASSES.	Quarters.				Year 1910.
	March	June.	Sept.	Dec.	
1. Zymotic and Septic Diseases	395	574	627	408	2,004
2. Diseases of Uncertain or Variable Seat.....	197	193	190	200	780
3. Constitutional Diseases.....	64	43	47	47	201
4. Tubercular Diseases	385	386	357	325	1,453
5. Diseases of the Nervous System	367	324	266	318	1,275
6. ,, ,, Circulatory ,, ...	305	268	256	297	1,126
7. ,, ,, Respiratory ,, ...	981	718	514	775	2,988
8. ,, ,, Digestive ,, ...	224	189	259	238	910
9. ,, ,, Lymphatic ,, ...	8	7	6	7	28
10. ,, ,, Urinary ,, ...	125	100	91	94	410
11 ,, ,, Reproductive ,, ...	15	9	20	19	63
12. ,, ,, Joints, &c.	10	9	9	3	31
13. ,, ,, Integumentary System	13	9	10	12	44
14. Dietetic Diseases.....	2	2	4	1	9
15. Developmental Diseases	443	408	377	465	1,693
16. Causes investigated at Coroner's Inquests ...	252	222	177	250	901
Causes not specified	...	...	1	...	1
All Causes	3,786	3,461	3,211	3,459	13,917

CITY OF LIVERPOOL.

Comparative view of twelve of the principal causes of Death during the year 1910.

O.9105.1500.6/11(23050)697 AA





ZYMOTIC DISEASES.

This class of disease is one calling for special attention, and is dealt with in some detail in the following tables, the first of which shows the localities and the periods of the fatal prevalence of zymotic diseases, and the subsequent tables deal specifically with each form of zymotic disease during 1910:—

DISTRICTS.	Deaths from all causes.	ZYMOTICS.				
		Quarters.				Per-centage of Zymotic Deaths to Deaths from all causes.
		March.	June.	Sept.	Dec.	
Scotland	1,424	46	91	118	49	21·3
Exchange	1,098	23	44	61	35	14·8
Abercromby	855	22	26	33	20	11·8
Everton	2,381	67	106	116	79	15·4
Kirkdale	1,288	41	72	66	36	16·7
West Derby (West)	1,478	44	49	58	43	13·1
Toxteth	1,888	32	91	70	62	13·5
Walton	894	29	32	31	18	12.3
West Derby (East)	832	29	13	22	22	10·3
Wavertree	473	23	8	12	6	10·3
Toxteth (East) (late Toxteth Rural)	387	15	7	14	9	11·6
Garston	304	9	12	6	6	10·8
Fazakerley	41	2	3	2	1	19·5
Workhouses and Hospitals (Residences outside City)	574	13	20	18	22	12·7
City	13,917	395	574	627	408	14·4

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

Zymotic diseases occasioned 2,004 deaths during the year 1910, and accounted for 14·4 per cent. of the total mortality within the city during this period. The death-rate from zymotic diseases per 1,000 was 2·6. The average rate for the preceding five years (1905-1909) was 2·9. The deaths during 1910 were as follows:—

	Quarters.				Year 1910.
	March.	June.	Sept.	Dec.	
Total Zymotics	395	574	627	408	2,004
Smallpox	...	...	...	...	...
Measles	72	216	98	88	474
Scarlet Fever	45	32	48	54	179
Diphtheria	33	17	19	31	100
Membranous Croup	...	1	...	1	2
Whooping-cough	140	189	80	41	450
Diarrhœa	32	57	334	117	540
Influenza	28	16	7	29	80
Fever — Typhus	...	...	...	...	...
Fever — Typhoid	13	10	8	11	42
Fever — Simple Continued	...	...	...	...	...
Other Zymotics	32	36	33	36	137

Note.—Influenza, Measles, and Whooping-cough appear to have been predisposing causes in the case of many deaths primarily ascribed to Respiratory Disease (page 16) inasmuch as one or other of these Zymotics had preceded the fatal illness. See also notes to succeeding tables.

SMALL-POX.

Smallpox was introduced into the city on four separate occasions during the year. In one instance the patient was removed direct from a ship, and one, who arrived from sea apparently well, developed the disease at his residence. The other two instances were those of Russian emigrants who arrived overland.

Together with the removal of the patients to hospital, isolation and re-vaccination of those who had been exposed to infection, disinfection of the infected clothing, houses, &c., were all carried out, and daily visits were made for fourteen days to infected houses to inquire if any sickness of any kind had arisen.

Including the imported cases, there was a total number of 10 cases notified, all of whom recovered.

The accompanying table is of interest as showing the greater intervals which are occurring in any considerable prevalence of small-pox.

Until 1877, deaths only were recorded, and between that date and the passing of the Notification Act (1889) the record was incomplete. Since that date, however, it is unlikely that any case escaped registration.

In 1884 there were nearly 200,000 fewer people in the city than there were in 1903, hence the relative incidence in 1903 was very much less than that of 1884. Efficiency of vaccination is the safeguard against small-pox.

The medical inspection of school children has brought to light valuable information as to the efficiency of vaccination in different localities, and it is disquieting to observe that in some districts there appears to be a growing neglect of vaccination, as evidenced by the fact that the younger children show a less satisfactory vaccination than the older ones.

It appears that over the whole City the percentage of unvaccinated boys and girls leaving school is 4·9, but in the new admissions of children to the schools it is 6·1 per cent., an addition which cannot be regarded without grave apprehension as to the results of exposure to smallpox. In one Poor-law district over 9 per cent. of the newly admitted children are unvaccinated—a discreditable state of affairs.

The figures are somewhat better for new admissions this year, but not quite so good for children leaving.

SMALL-POX DURING THE LAST FORTY-EIGHT YEARS.

Years of Increase.	No. of Cases.	Deaths.	Years of Subsidence.	No. of Cases.	Deaths.
1863	Unrecorded	100			
1864	,,	482			
1865	,,	459			
1866	,,	102			
			1867	Unrecorded	22
			1868	,,	18
			1869	,,	20
1870	,,	174			
1871	,,	1,919			
1872	,,	50			
			1873	,,	10
			1874	,,	30
			1875	,,	29
1876	,,	386			
1877	1,660	299			
			1878	35	3
			1879	12	...
			1880	14	2
			1881	262	34
			1882	67	6
			1883	126	26
1884	832	106			
			1885	375	46
			1886	234	29
			1887	23	1
			1888	27	1
			1889	9	1
			1890	2	...
			1891	21	2
			1892	177	13
			1893	75	9
			1894	229	20
			1895	130	12
			1896	8	...
			1897	6	...
			1898	17	2
			1899	10	1
			1900	156	23
			1901	37	6
1902	560	20			
1903	1720	141			
			1904	27	2
			1905	15	...
			1906	19	...
			1907	19	...
			1908	7	...
			1909	9	...
			1910	10	...

TYPHUS FEVER.

Of recent years cases of this disease have been imported by trans-migrants, en route to America or Canada. On two separate occasions during 1910 the disease was introduced by Russian and Turkish emigrants.

It is particularly liable to spread amongst dirty, ill-fed, and intemperate persons, and incessant watchfulness is necessary in order to hold it in check. The disease almost always attacks the children of the family first; in them the symptoms are obscure, and are often unrecognised until adults succumb.

The total number of cases reported was 11 (the lowest number recorded in any year), against 17 in the preceding year; the average number of the last five years being 43.

For the first time on record not a single death was registered from this disease during the year.

Reports for preceding years sufficiently illustrate the importance of the daily visits which are made to houses which have been infected with typhus fever, as well as the importance of keeping under supervision every person who is known to have been in contact with the patient. None of the stringent measures which have been adopted against typhus are in any way relaxed.

The number of deaths during each of the preceding ten years has been as follows:—

1900	11
1901	14
1902	25
1903	57
1904	25
1905	28
1906	8
1907	18
1908	10
1909	8

TYPHOID FEVER.

There were 231 cases of Typhoid Fever reported during the year, the number being lower than in any preceding year. There were 1,026 in 1902, 681 in 1903, 434 in 1904, 325 in 1905, 491 in 1906, 482 in 1907, 447 in 1908, and 278 in 1909. The deaths were 42, being 12 fewer than in the preceding year, and the lowest recorded in Liverpool. The figures include the deaths of 10 non-residents.

With the great decline which has occurred in this disease within recent years, particularly marked in the case of Liverpool, the importation of Enteric Fever assumes a greater importance than heretofore. The number of oversea-borne cases has slightly increased in the last fifteen years, whilst the relative proportion of ship cases to all cases notified in Liverpool has markedly increased, as is shown by the following table :—

IMPORTED TYPHOID FEVER DURING THE FIFTEEN YEARS 1896 TO 1910.

Year.	Cases removed from ship.	Proportion of ship cases to total cases.
1896	22	1·9 %
1897	22	2·0 %
1898	33	3·5 %
1899	22	2·1 %
1900	23	3·0 %
1901	22	2·5 %
1902	29	2·8 %
1903	30	4·2 %
1904	24	5·3 %
1905	23	7·0 %
1906	36	7·1 %
1907	36	7·1 %
1908	28	6·4 %
1909	23	8·2 %
1910	30	12·8 %

Included in the term "ship" cases are (*a*) all imported cases treated at home, and (*b*) those imported cases in which, after removal to hospital in Liverpool, the diagnosis was finally verified; this, whether the person was sick on arrival, or sickened within the incubation period of typhoid.

Upwards of 76 per cent. of the total number of cases notified during the year were removed to hospital. (See page 224).

The accompanying charts are instructive. The first one indicates the steady decline in the mortality from typhoid fever since the year 1894, a decline which may be ascribed to various reasons, such as the greater facility for isolation of the sick, the abundant supply of pure water, improved housing, and the greater care taken in the supervision of those food supplies, more especially milk, which play an important part in the dissemination of this disease.

The second chart indicates the incidence of typhoid fever during each week of the year 1910, the absence of the usual late autumn rise being a very satisfactory feature.

The number of deaths from Typhoid Fever during each of the preceding ten years, 1900-1909, has been as follows:—

1900	120
1901	154
1902	190
1903	108
1904	82
1905	49
1906	85
1907	92
1908	73
1909	54

For cases see page 226.

DEATHS FROM TYPHOID FEVER.

The following table shows the periods of the year and the localities in which deaths from typhoid fever occurred, and also the ages at death.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	1	...	1	1	1	1	...	...	3	2	5
Exchange	1	...	...	...	...	...	...	1	1	1	2
Abercromby	...	1	...	...	...	1	1	...	1	2	3
Everton	1	...	2	...	...	...	...	...	3	...	3
Kirkdale	...	2	...	1	...	...	...	2	...	5	5
West Derby (West)	1	...	2	...	...	...	...	...	3	...	3
Toxteth	...	...	...	1	...	...	1	...	1	1	2
Walton	...	...	...	1	1	...	...	...	1	1	2
West Derby (East)	...	1	...	...	...	...	...	...	...	1	1
Wavertree	2	1	1	...	...	...	1	...	4	1	5
Toxteth (East) (late Toxteth Rural)	1	...	...	...	...	...	...	...	1	...	1
Garston	...	...	...	...	...	...	...	...	...	...	...
Fazakerley	...	...	...	...	...	...	...	...	...	...	...
Hospitals (Residences outside the City)	1	...	...	...	4	...	3	2	8	2	10
City	8	5	6	4	6	2	6	5	26	16	42

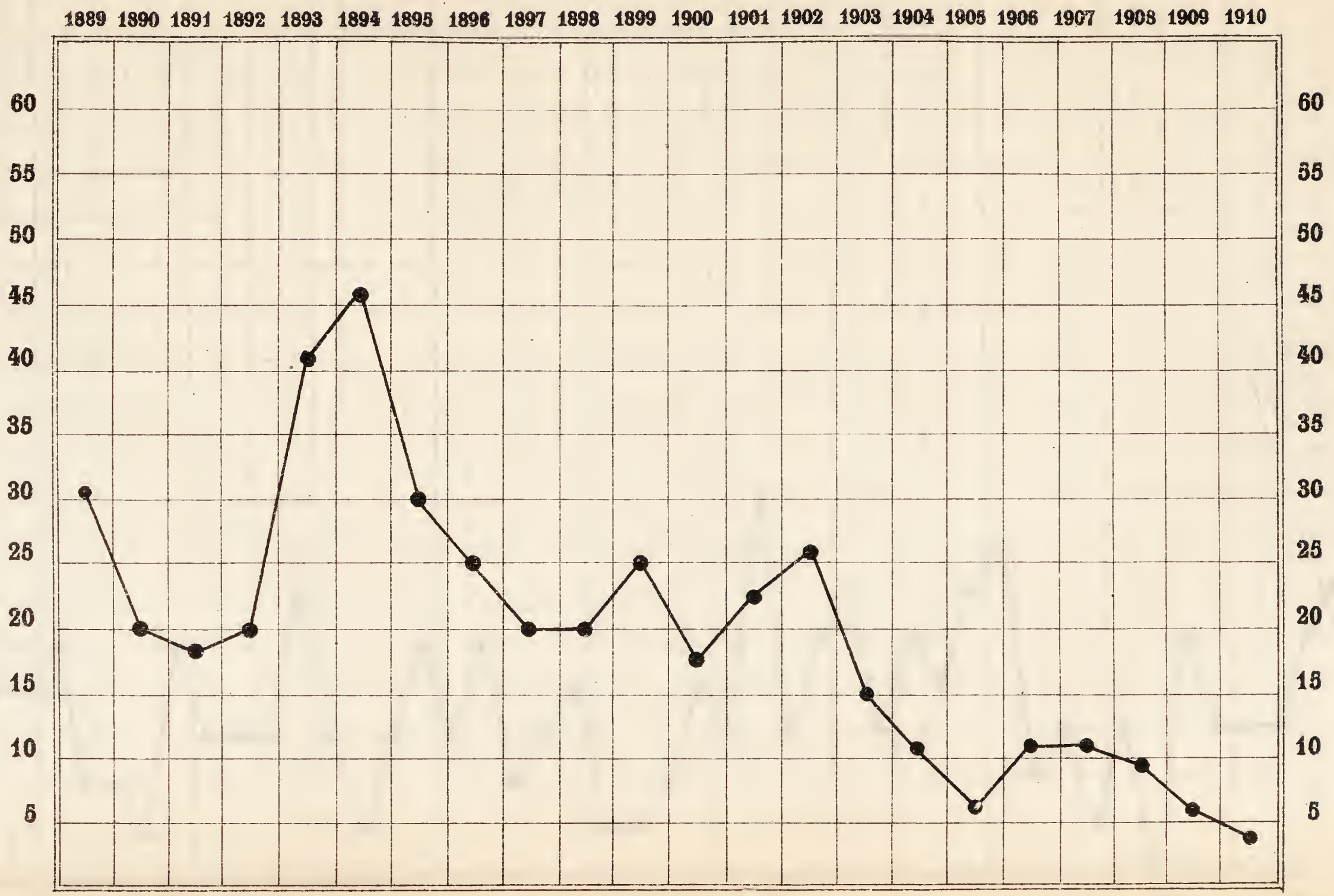
Ages at Death.

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60 and upwards.	All Ages.
...	...	...	...	...	3	4	6	11	11	4	1	2	42

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

CITY OF LIVERPOOL.

Death Rate per 100,000 of Resident Population from Typhoid Fever, 1889—1910.



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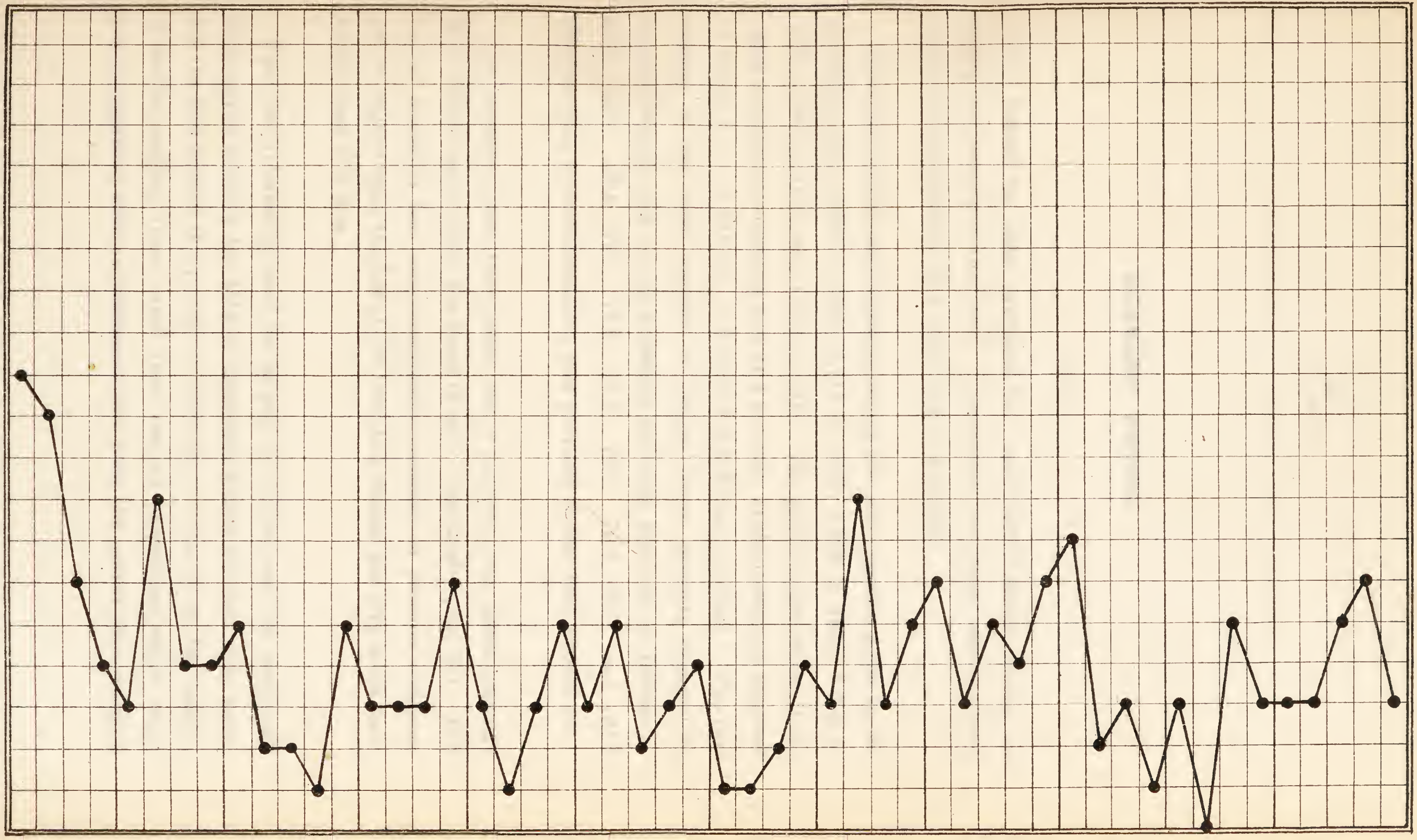


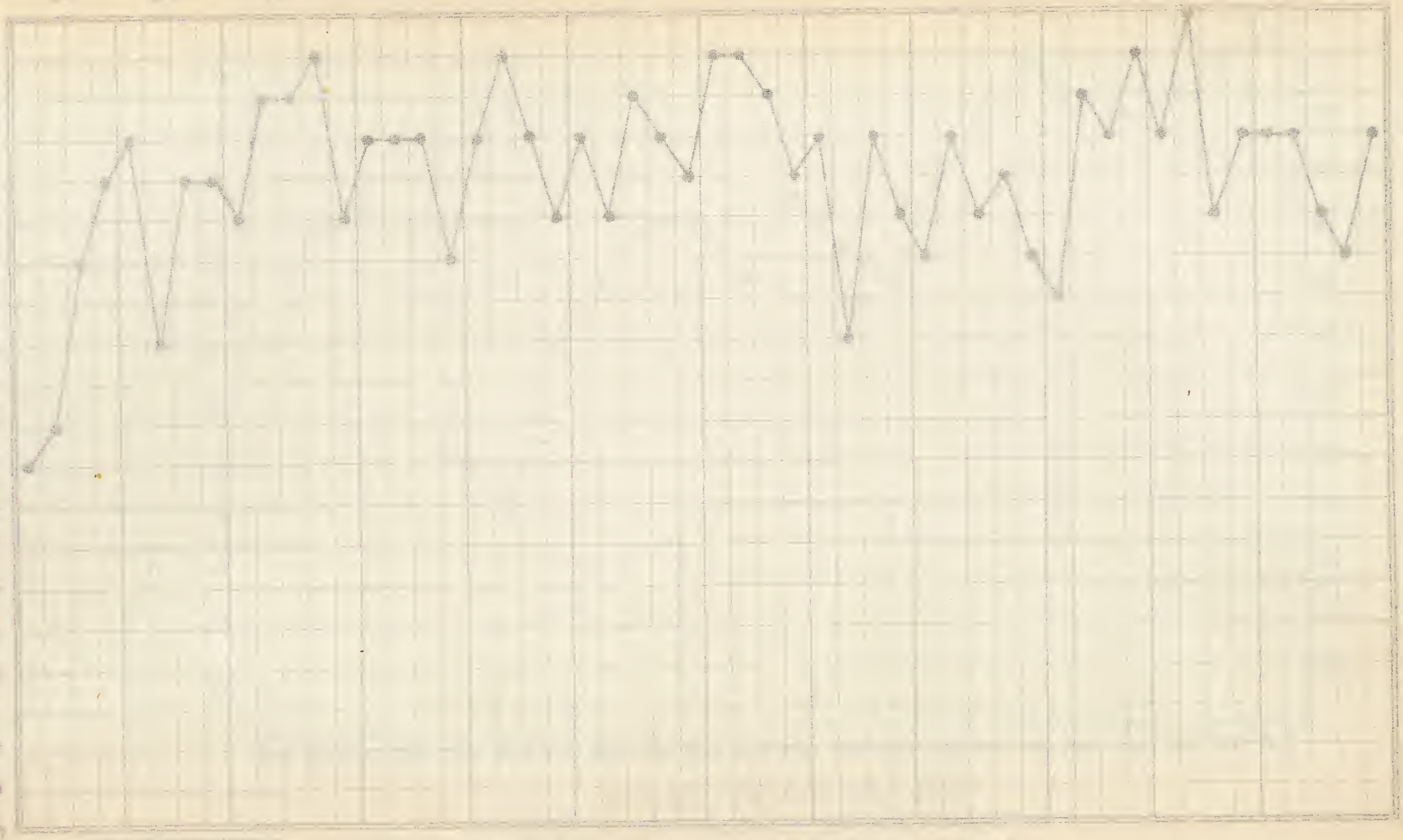
CITY OF LIVERPOOL.

Cases

O.8871.1500.5/11(22703)696 K

Cases of Typhoid Fever reported during each week of 1910.





SCARLET FEVER.

This disease was again prevalent to a considerable extent during the spring and autumn of this year. Fortunately the disease was of a mild type, and accompanied by a lower rate of mortality.

There were 4,202 cases reported during the year, against 4,059 in the preceding year, 4,295 in 1908, 2,741 in 1907, 2,959 in 1906, 4,308 in 1905, 2,988 in 1904, and 4,053 in 1903. The public appreciation of the value of isolation continues, and 84·3 per cent. of the cases were removed to hospital, *i.e.*, 3,546 out of a total of 4,202 cases reported. The percentage of the total number of Scarlet Fever patients removed to hospital during each of the preceding ten years has been as follows:— 60·8, 54·8, 53·4, 52·9, 74·6, 73·0, 74·0, 78·2, 82.1 and 81·0 showing that as accommodation was provided it was well availed of.

The mortality from this disease was 4 per cent., the great majority of the deaths being below five years of age. (See table, page 27). This rate of mortality has been considerably exceeded on previous occasions, and in bygone years the loss of life from this disease was very much more serious than it is now.

Upon the interesting chart facing page 26 will be seen the death-rate from scarlet fever in the City of Liverpool during the last sixty years. For the first half of this period, at intervals of a year or so, the number of deaths resulting from scarlet fever reached proportions which would now be regarded with astonishment, but from the period when hospital

provision was found for the isolation of patients, and better administrative methods, aided by various Acts of Parliament, were adopted, there has been a remarkable drop in the fatality from this disease. The lesson is an important one, and may well be applied to other forms of infectious sickness, such as measles, which, although presenting difficulties of its own, would no doubt diminish in amount if a more complete isolation were possible.

The total number of deaths was 179, including 7 non-residents admitted to the City Infectious Hospitals, against 219 last year, and an average of 200 during the preceding five years.

The number of deaths from Scarlet Fever during each of the preceding ten years, 1900-1909, has been as follows:—

1900	113
1901	195
1902	318
1903	201
1904	149
1905	303
1906	193
1907	140
1908	217
1909	219

The table on the next page shows the periods of the year and the localities in which deaths from scarlet fever occurred, and also the ages at death:—

CITY OF LIVERPOOL. SCARLET FEVER DEATH RATE PER 100,000. 1848-1910.



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DEATHS FROM SCARLET FEVER.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	1	1	1	2	2	2	1	1	5	6	11
Exchange	1	...	...	1	...	...	1	1	2	2	4
Abercromby	...	...	...	...	3	1	1	1	4	2	6
Everton	1	3	2	3	2	1	7	2	12	9	21
Kirkdale	1	...	2	2	1	...	1	3	5	5	10
West Derby (West)	2	3	3	3	7	6	3	8	15	20	35
Toxteth	2	3	4	2	3	1	9	4	18	10	28
Walton	5	5	2	2	1	4	...	3	8	14	22
West Derby (East)	4	5	2	1	...	2	...	1	6	9	15
Wavertree	1	4	...	...	3	...	2	1	6	5	11
Toxteth (East) (late Toxteth Rural)	...	1	...	...	4	...	1	1	5	2	7
Garston	...	...	...	...	...	...	...	...	...	...	...
Fazakerley	...	1	...	...	...	1	...	...	...	2	2
Hospitals (Residences outside the City)	...	1	...	...	2	2	1	1	3	4	7
City	18	27	16	16	28	20	27	27	89	90	179

Ages at Death.

Under 1 year.	1—	2—	3—	4—	5 –	10—	15—	20—	30—	40—	50—	All Ages.
10	19	31	19	32	52	9	5	2	...	...	...	179

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

MEASLES.

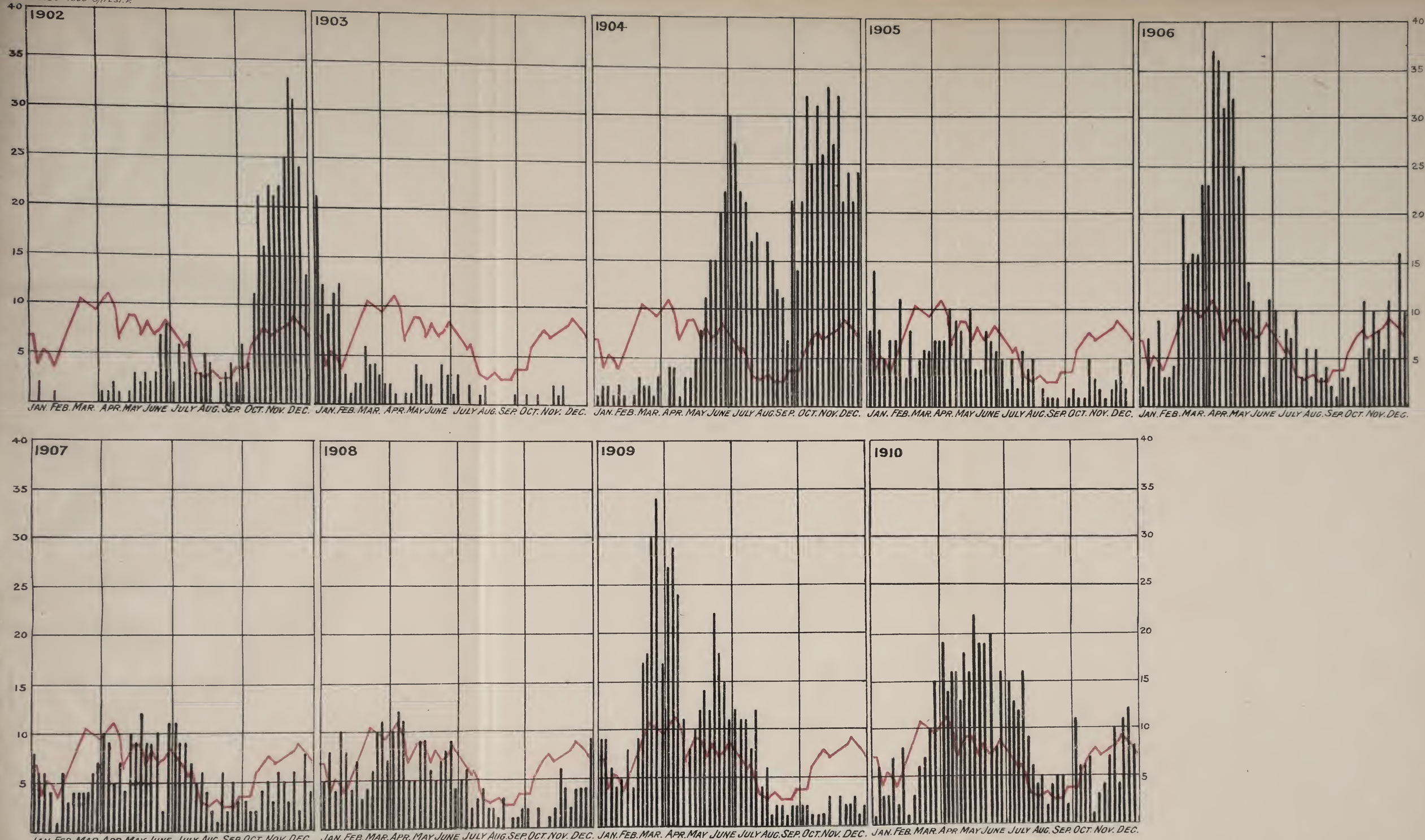
Measles was prevalent during the Spring and Autumn months of the year to an extent which rendered necessary the closure for short periods of a number of the Infant Schools.

The total cases reported during the year were 4,755, showing a decrease compared with the preceding year, when the cases reported reached 6,356 as against 4,653 in 1908, 5,640 in 1907, 6,819 in 1906, 3,938 in 1905, 9,453 in 1904, 2,727 in 1903, 7,141 in 1902, and 6,766 in 1901. There were 474 deaths directly ascribed to it, the great majority of them being of infants below 3 years of age. The number of deaths in the preceding year was 471, although the cases were much more numerous.

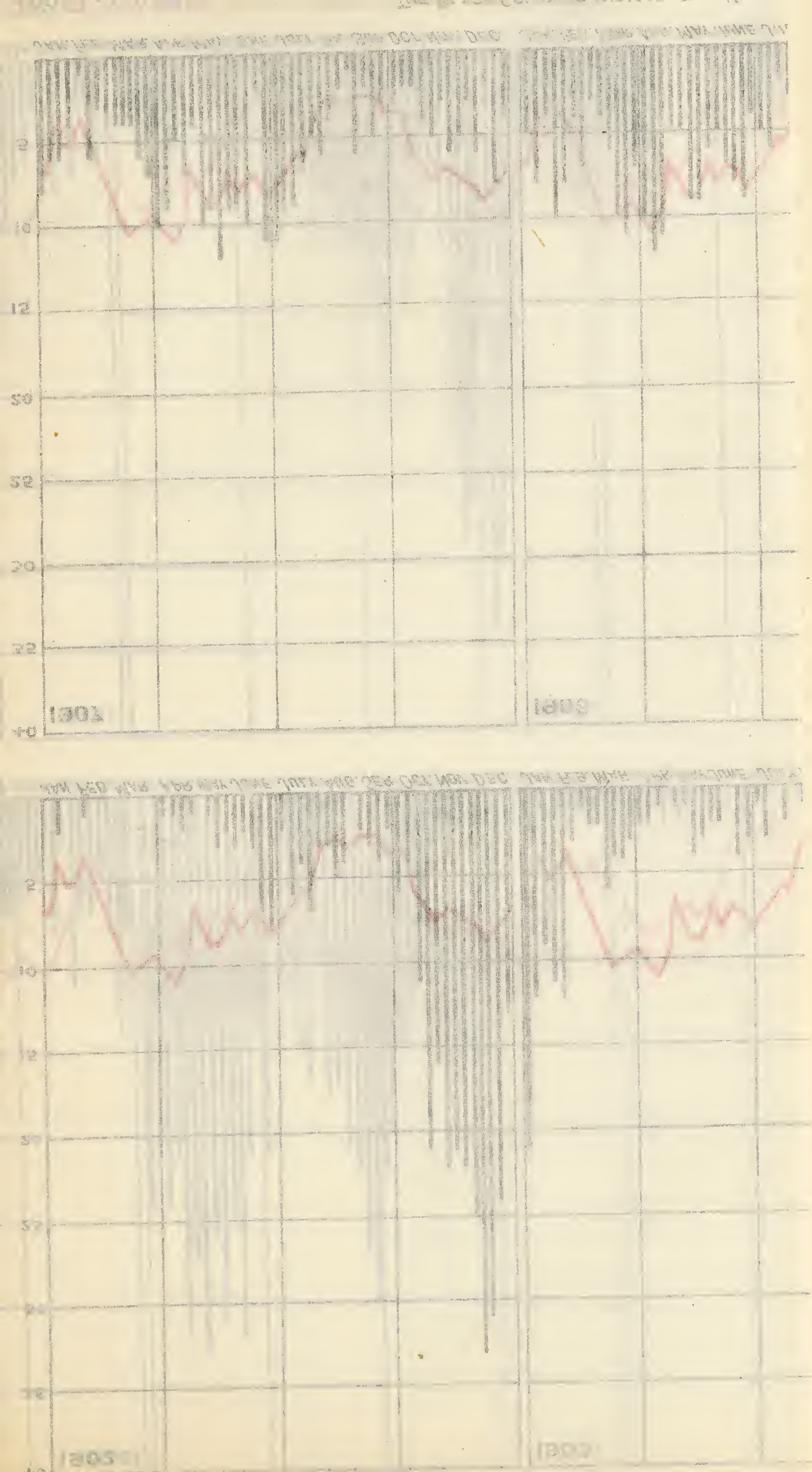
As has been frequently pointed out, the number of deaths does not fully indicate the destruction of life due to measles, since this disease is commonly associated with bronchitis and pneumonia, and it is beyond any question that deaths primarily due to measles are entered in the returns as due to pulmonary disease. The isolation of the infectious sick in hospital is important and necessary. Hospital accommodation, for a limited number of cases, has now been made for measles, but the deaths from measles do not show a decline comparable to that which has taken place in the forms of infectious disease for which hospital accommodation is available. In the great number of homes in which measles occur isolation in the house is difficult or impossible. In making arrangements for hospital isolation of measles, difficulties of a special kind arise owing to the tender age of the patient, and the peculiarities of the infection in this form of disease.

The tendency of this disease to recur at intervals of about 18 months is well illustrated in the accompanying diagrams. There has, however, been no considerable outbreak since May, 1906, until the spring of this and the preceding year, although the prevalence of the disease during 1907 and 1908, as compared with former inter-epidemic periods, was more general.

M. 3890 - 1500 - 5/11 Est. P.



THE BLACK COLUMNS INDICATE THE NUMBER OF DEATHS FROM MEASLES DURING EACH WEEK OF THE YEARS 1902 TO 1910.
THE RED LINE IN THE DIAGRAM FOR EACH YEAR REPRESENTS THE WEEKLY AVERAGE Nº OF DEATHS IN THE 10 YEARS 1900–1909.



The following table shows the periods of the year and the localities in which deaths from Measles occurred, and also the ages at death.

The number of deaths from Measles during each of the preceding ten years, 1900-1909, has been as follows—150, 473, 334, 132, 696, 247, 586, 291, 259 and 471.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	2	1	13	9	11	8	7	9	33	27	60
Exchange	1	...	6	5	11	6	4	5	22	16	38
Abercromby	6	5	3	5	1	1	4	4	14	15	29
Everton	9	7	25	20	12	9	9	8	55	44	99
Kirkdale	3	2	11	16	8	7	2	3	24	28	52
West Derby (West)	2	6	10	11	3	5	4	4	19	26	45
Toxteth	3	7	22	25	1	8	5	7	31	47	78
Walton	...	2	4	8	2	2	1	1	7	13	20
West Derby (East)	...	1	2	3	1	...	2	3	5	7	12
Wavertree	1	3	3	2	...	1	...	...	4	6	10
Toxteth (East) (late Toxteth Rural)	3	1	...	...	...	...	...	...	3	1	4
Garston	1	3	4	1	...	...	...	1	5	5	10
Fazakerley	...	...	...	...	...	...	1	...	1	...	1
Hospitals (Residences outside the City)	2	1	5	3	...	1	3	1	10	6	16
City	33	39	108	108	50	48	42	46	233	241	474

Ages at Death.

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
120	205	63	44	17	25	...	...	...	...	...	...	474

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

WHOOPING-COUGH.

This disease, which again showed a considerable prevalence in the city, is one of the most distressing and painful causes of death in very early life; a large number of deaths certified to be primarily due to diseases of the lungs are found on inquiry to have originated in whooping-cough, the great majority of the deaths occurring below two years of age, and nearly one-half below twelve months of age. It is plain from this circumstance that isolation of the infected infant in hospital presents many difficulties, similar in character to those which arise in the case of Measles. In a large proportion of cases the patient would have to be accompanied by the mother, whilst the period of detention in hospital would in the majority of cases be protracted. During last year 450 deaths were directly attributed to whooping-cough, but this figure is by no means a complete representation of the mischief caused by it.

Notwithstanding the difficulties in the way, isolation for a limited number of cases has been found, and some lessening of this disease may be expected with confidence. Experience has repeatedly shown that the introduction of a case of whooping-cough into a court has resulted in the spread of the infection to practically the whole of the infant population in that court.

The following table shows the periods of the year and the localities in which deaths from Whooping-cough occurred, and also the ages at death.

The number of deaths from Whooping-cough during each of the preceding ten years, 1900-1909, has been as follows:—538, 166, 407, 318, 426, 151, 362, 324, 346 and 228.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	9	21	20	27	4	7	...	...	33	55	88
Exchange	6	7	11	6	1	5	3	2	21	20	41
Abercromby	1	1	6	5	3	2	...	1	10	9	19
Everton	15	14	15	19	7	7	3	5	40	45	85
Kirkdale	11	11	15	18	2	4	4	...	32	33	65
West Derby (West)	11	7	5	4	3	2	2	4	21	17	38
Toxteth	3	1	7	8	1	7	5	4	16	20	36
Walton	1	3	3	4	1	5	1	1	6	13	19
West Derby (East)	1	5	1	1	3	4	3	1	8	11	19
Wavertree	2	5	...	...	2	1	...	...	4	6	10
Toxteth (East) (late Toxteth Rural).	1	2	2	1	1	3	...	...	4	6	10
Garston	...	1	5	2	1	1	...	...	6	4	10
Fazakerley	...	...	1	1	...	...	...	...	1	1	2
Hospitals (Residences outside the City)	1	...	1	1	1	2	1	1	4	4	8
City	62	78	92	97	30	50	22	19	206	244	450

Ages at Death.

Under 1 year.	1—	2—	3 —	4—	5—	10—	15—	20 —	30—	40—	50—	All Ages.
203	140	47	28	19	13	...	...	...	...	...	...	450

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

DIPHTHERIA.

Deaths from Diphtheria attained their maximum during the first quarter of the year. Appended is a table showing the periods of the year and the localities in which the deaths from Diphtheria occurred, and also the ages at death.

The number of deaths during each of the preceding ten years has been as follows:—143, 158, 200, 153, 181, 138, 137, 95, 124 and 112.

DISTRICTS.	Quarters.								Year		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	...	...	...	2	...	...	...	1	...	3	3
Exchange	1	1	...	1	...	...	1	1	2	3	5
Abercromby	1	1	...	1	...	1	...	1	1	4	5
Everton	1	3	1	...	4	1	3	4	9	8	17
Kirkdale	2	2	1	...	...	1	1	...	4	3	7
West Derby (West)	1	1	...	...	...	1	2	...	3	2	5
Toxteth	...	2	1	3	1	1	4	3	6	9	15
Walton	...	4	2	1	...	3	3	1	5	9	14
West Derby (East)	2	4	...	...	1	3	...	2	3	9	12
Wavertree	1	...	...	2	...	...	...	...	1	2	3
Toxteth (East) (late Toxteth Rural).	1	1	1	1	...	1	...	2	2	5	7
Garston	1	1	...	...	...	...	...	...	1	1	2
Fazakerley	...	...	...	...	1	...	...	...	1	...	1
Hospitals (Residences outside the City)	1	1	...	...	...	...	1	1	2	2	4
City	12	21	6	11	7	12	15	16	40	60	100

Ages at Death

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30	40—	50	60—	All Ages.
4	18	10	15	14	35	3	1	...	...	...	...	...	100

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

CROUP.

The following table shows the periods of the year and the localities in which deaths attributed to Croup occurred, and also the ages at death. Two of the deaths were attributed to Membranous Croup, and ten to Croup.

The number of deaths during each of the preceding ten years has been as follows:—40, 51, 41, 24, 33 37, 24, 22, 22 and 10.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	...	...	...	...	...	...	...	...	...	...	...
Exchange	...	...	...	...	...	...	...	...	...	...	...
Abercromby	...	...	...	...	...	...	...	...	...	...	...
Everton	1	1	...	2	...	...	...	1	1	4	5
Kirkdale	...	...	...	...	1	...	...	...	1	...	1
West Derby (West)	...	...	...	...	1	1	...	...	1	1	2
Toxteth	...	...	...	...	...	...	1	...	1	...	1
Walton	...	...	...	...	...	1	...	1	...	2	2
West Derby (East)	...	...	...	...	...	...	...	...	...	...	...
Wavertree	...	...	...	...	...	...	...	...	...	...	...
Toxteth (East) (late Toxteth Rural).	...	...	...	...	...	...	...	1	...	1	1
Garston	...	...	...	...	...	...	...	...	...	...	...
Fazakerley	...	...	...	...	...	...	...	...	...	...	...
Hospitals (Residences outside the City)	...	...	...	...	...	...	...	...	...	...	..
City	1	1	...	2	2	2	1	3	4	8	12

Ages at Death.

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	All Ages.
1	4	2	3	...	2	...	...	...	...	...	...	12

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

ZYMOTIC DIARRHŒA.

Zymotic Diarrhœa is one of the most fatal diseases of infants in this City; it is by no means confined to infancy, but during 1910, as in preceding years, more than one-half of the total number of deaths were of infants under twelve months old. It is most satisfactory to be able to again record a very marked decline in this form of disease, a result no doubt due partly to the low temperature and amount of rain in the early months of the summer, as well as to the increased municipal effort to lessen the prevalence of the disease.

Investigation proves incontestably that the deaths of infants from this cause are closely associated with the method of feeding, putrefying food being the medium by which the specific poison is commonly introduced. The deaths amongst children under three months of age, either wholly or partially fed on artificial foods, are fifteen times as great as they are amongst an equal number of infants fed upon breast milk; *e.g.*, investigation has tended to prove that, out of every 1,000 infants under three months of age, naturally fed upon breast milk alone, 20 die of autumnal choleraic disease; but if the same number of infants, at the same age, are artificially fed, then, instead of 20 dying, as many as 300 will die from this cause. It is mainly with a view to meet this excessive mortality that sterilized milk depôts have been established, to ensure a supply of food for infants which is bacteria-free, and which can be given without any exposure to sources of contamination. (See also pp. 13 and 158).

The connection between the meteorological conditions and the prevalence of zymotic diarrhœa during the third quarter of the year, is well shown in the following diagrams.

These five diagrams give the daily variations of the rainfall and the mean temperature of the air, during the months of June to September, and the daily deaths from zymotic diarrhœa during July, August, and September for the years 1906, 7, 8, 9 and 10. October being included in the four latter years.

In comparing the years 1907, 1908, 1909 and 1910 with the year 1906 it will be seen that the mean temperature in the latter frequently rose far above the 20 years' average, and remained so for several days together. It seldom fell below the average. The rainfall during the year 1906 was scanty. The summer and autumn of that year was characterised by severe attacks of diarrhœa. On the other hand the mean temperature during the years 1907, 1908, 1909 and 1910 was usually below the average, and rarely rose above it, and then only for short intervals of a day or so. The amount of rain which fell was much greater. These conditions were associated with a death-rate from diarrhœa which was about one-half of that which occurred in 1906.

The numbers of deaths during each of the preceding ten years have been as follows:—900, 1,269, 611, 657, 1,785, 960, 1,298, 544, 630 and 514.

Provision was made during the year for the treatment at the Fazakerley Hospital of a limited number of infants suffering from infantile diarrhœa. See p. 223 (Hospitals).

Valuable service has been rendered in previous years by the authorities of the Royal Infirmary, Stanley Hospital, David Lewis Northern Hospital, Belmont Road Hospital, and Children's Infirmary in receiving a considerable number of patients, all of them infants, suffering from this disease. In some instances the cost was defrayed by the Corporation.

DEATHS FROM DIARRHŒA.

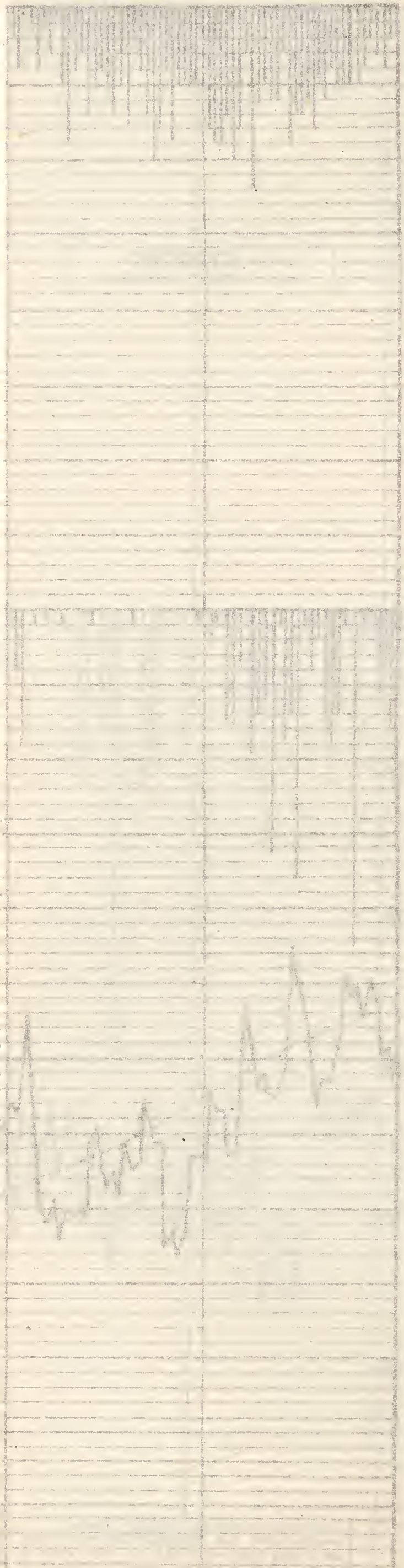
The following table gives the Districts in which fatal diarrhœa occurred, the seasons in which it took place and the ages of the patients. It will be seen that the greatest fatality was amongst infants under 12 months of age:—

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	4	2	8	4	47	31	18	7	77	44	121
Exchange	2	2	5	3	18	18	6	7	31	30	61
Abercromby	2	...	1	3	5	10	1	3	9	16	25
Everton	1	2	5	10	37	31	20	11	63	54	117
Kirkdale	3	...	2	...	24	17	5	5	34	22	56
West Derby (West)	1	3	3	1	13	15	3	8	20	27	47
Toxteth	1	2	3	4	23	18	4	7	31	31	62
Walton	...	...	...	...	4	6	3	2	7	8	15
West Derby (East)	3	...	1	1	4	2	4	...	12	3	15
Wavertree	...	...	...	...	3	1	...	...	3	1	4
Toxteth (East) ... ... (late Toxteth Rural)	...	1	1	...	...	1	...	...	1	2	3
Garston	...	...	...	...	1	1	2	...	3	1	4
Fazakerley	1	...	1	...	...	...	...	...	2	...	2
Hospitals (Residences outside the City)	1	1	1	...	3	1	1	...	6	2	8
City	19	13	31	26	182	152	67	50	299	241	540

Ages at Death.

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50 —	60 & upwards.	All Ages.
300	172	35	8	2	6	1	...	1	...	1	2	12	540

Deaths in Public Institutions are transferred to the Districts from whence the patients came.



YEAR 1906

3878 · 1500 5/11 (23721) Est. L

THE BLACK LINE INDICATES THE MEAN DAILY TEMPERATURE THE DOTTED LINE INDICATES THE AVERAGE FOR THE LAST 20 YEARS.

70° 1·25

60° 1·00

50° 0·75

40° 0·50

0·25

DAILY RAINFALL IN INCHES

40

35

30

25

20

DAILY RECORD OF DEATHS FROM DIARRHŒA

15

10

5

0

JULY

AUGUST

SEPTEMBER

YEAR 1907

THE BLACK LINE INDICATES THE MEAN DAILY TEMPERATURE THE DOTTED LINE INDICATES THE AVERAGE FOR THE LAST 20 YEARS.

70° 1·25

60° 1·00

50° 0·75

40° 0·50

0·25

DAILY RAINFALL IN INCHES

DAILY RECORD OF DEATHS FROM DIARRHŒA

JULY

AUGUST

SEPTEMBER

OCTOBER

YEAR 1908

THE BLACK LINE INDICATES THE MEAN DAILY TEMPERATURE THE DOTTED LINE INDICATES THE AVERAGE FOR THE LAST 20 YEARS.

70° 1·25

60° 1·00

50° 0·75

40° 0·50

0·25

DAILY RAINFALL IN INCHES

40

30

20

DAILY RECORD OF DEATHS FROM DIARRHŒA

10

JULY

AUGUST

YEAR 1909

THE **BLACK LINE** INDICATES THE MEAN DAILY TEMPERATURE THE **DOTTED LINE** INDICATES THE AVERAGE FOR THE LAST 30 YEARS.

70° 1·25

60° 1·00

50° 0·75

40° 0·50

0·25

DAILY RAINFALL IN INCHES

DAILY RECORD OF DEATHS FROM **DIARRHŒA**

JULY AUGUST SEPTEMBER OCTOBER

EMBER OCTOBER

YEAR 1910.

THE **BLACK LINE** INDICATES THE MEAN DAILY TEMPERATURE THE **DOTTED LINE** INDICATES THE AVERAGE FOR THE LAST 30 YEARS.

60° 1·00

50° 0·75

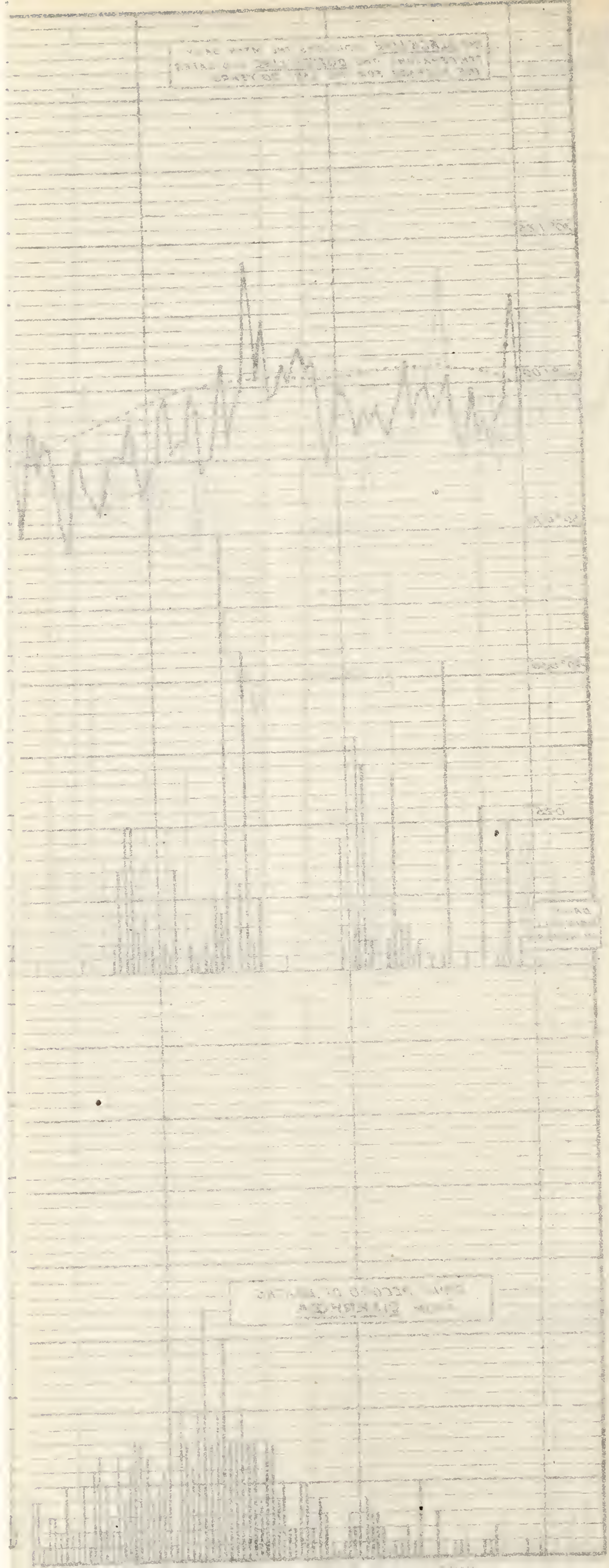
40° 0·50

0·25

DAILY RAINFALL IN INCHES

DAILY RECORD OF DEATHS FROM **DIARRHŒA**

JULY AUGUST SEPTEMBER OCTOBER



List of Streets in the City wherein Three or more Deaths from Diarrhœa occurred during the year 1910.

Streets.	No. of Deaths.	Streets.	No. of Deaths.
Athol	4	Hopwood	5
Beaufort	3	Hornby	6
Braemar	3	Lancaster (Kirkdale)	5
Buckingham	4	Leyden	3
Casterton	3	Moon	3
China	4	Pugin	3
Clifton	3	Raymond	3
Conway	3	Roscommon	3
Daulby	3	Rose Vale	3
Dryden	4	St. Anne	4
Everton Terrace	3	St. Martin's Place	3
Field	7	Silvester	3
Gerard	5	Skirving	4
Gordon	3	Slade	4
Hawdon	4	Westmoreland Place	4
Hook	4	Wolfe	5

In arranging the foregoing list of streets, all deaths occurring in hospitals have been transferred to the streets from whence the patients were removed.

OTHER ZYMOTICS.

The following table indicates the localities in which deaths from other forms of zymotic disease occurred during the year:—

DISTRICTS.	Influenza.		Erysipelas.		Syphilis.		Rheumatic Fever.		Puerperal Fever.		Other Zymotics.		Year.
	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	Total.
Scotland	2	3	4	2	1	1	...	2	...	...	...	1	16
Exchange	1	2	2	...	3	1	1	1	...	1	...	...	12
Abercromby	2	3	...	...	1	3	2	1	...	1	...	1	14
Everton	6	1	2	1	2	3	3	1	...	3	3	...	25
Kirkdale	5	6	1	2	...	2	1	1	...	...	...	1	19
West Derby (West) ..	1	3	1	3	3	2	1	2	...	1	2	2	21
Toxteth	7	10	2	2	3	4	...	3	...	...	2	1	34
Walton	3	3	...	1	1	2	4	1	...	2	...	...	17
West Derby (East)...	3	2	...	1	...	2	...	1	...	1	1	1	12
Wavertree	1	2	...	2	...	1	...	...	...	...	1	...	7
Toxteth (East) ..... (late Toxteth Rural)	4	4	...	1	...	1	...	1	...	...	1	1	13
Garston	1	1	...	...	1	3	...	1	...	...	...	...	7
Fazakerley	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospitals(Residences outside the City)..	3	1	2	1	2	2	...	...	...	...	6	3	20
City	39	41	14	16	17	27	12	15	...	9	16	11	217

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

THE FOLLOWING TABLE SHOWING THE ANNUAL AVERAGE NUMBER OF DEATHS FROM SEVEN OF THE PRINCIPAL ZYMOTIC DISEASES DURING EACH OF THE LAST FOUR DECENNIAL PERIODS, IS INTERESTING AND INSTRUCTIVE. THE DECLINE IN THE MORE FORMIDABLE FORMS OF INFECTIOUS DISEASES IS VERY MARKED.

Years.	Small Pox.	Typhus.	Scarlet Fever.	Measles.	Whooping Cough.	Diarrhœa.	Typhoid.
1866 to 1875	237·4	652·8	789·4	425·7	496·8	995·3	† —
1876 to 1885	90·8	238·0	421·2	517·8	472·3	658·4	126·4
1886 to 1895	8·8	37·1	257·5	399·5	322·4	600·6	153·0
*1896 to 1905	19·5	25·1	201·3	329·0	330·4	1,051·9	134·4
1906-10.....	·2	8·0	182·6	407·0	337·6	703·6	60·6

* Including extended City area.

† Records not available.

ANNUAL AVERAGE NUMBER OF DEATHS FROM SEVEN OF THE PRINCIPAL ZYMOTIC DISEASES DURING EACH OF THE LAST FOUR DECENNIAL PERIODS, DISTINGUISHING THOSE OF PERSONS ABOVE AND BELOW FIVE YEARS OF AGE.

Years.	Smallpox.		Typhus.		Scarlet Fever.		Measles.		Whooping Cough.		Diarrhœa.		Typhoid.	
	Above 5.	Below 5.	Above 5.	Below 5.	Above 5.	Below 5.	Above 5.	Below 5.	Above 5.	Below 5.	Above 5.	Below 5.	Above 5.	Below 5.
1866 to 1875	141·7	95·7	*...	*...	187·7	601·7	14·4	411·3	9·9	486·9	105·7	889·6	* —	* —
1876 to 1885	62·5	28·3	†190·0	† 5·1	137·0	284·2	35·4	482·4	18·6	453·7	61·9	596·5	†110·3	† 12·1
1886 to 1895	6·2	2·6	36·2	·9	87·6	169·9	28·3	371·2	15·1	307·3	60·2	540·4	142·0	11·0
**1896 to 1905	14·5	5·0	24·2	·9	61·7	139·6	17·1	311·9	11·9	318·5	53·6	1,008·3	128·4	6·0
1906-10	·2	—	7·6	·4	64·4	118·2	22·0	385·0	11·4	326·2	26·8	676·8	58·8	1·8

* During these years the ages at death from Typhus and Typhoid were not differentiated.

† During the six years, 1880-1885.

** Including extended City area.

The following table shows the number of deaths, the annual average death-rate per 100,000 of the population from the undermentioned forms of disease during the last five decades 1856 to 1905, and during the last five years 1906-1910;—

DISEASE.		1856 to 1865, Average Population 443,938.	1866 to 1875, Average Population 493,405.	1876 to 1885, Average Population 538,651.	1886 to 1895, Average Population 536,974.	1896† to 1905, Average Population 691,351.	1906-10, Average Population 734,673.
Scarlet Fever	Total Deaths.....	5,994	7,894	4,212	2,575	2,013	913
	Rate per 100,000 per annum.	135·0	159·9	78·1	47·9	29·1	24·8
Typhus Fever	Total Deaths.....	7,482	6,528	2,380	371	251	40
	Rate per 100,000 per annum.	168·5	132·2	44·1	6·9	3·6	1·0
Typhoid Fever	Total Deaths.....	*	*	1,264	1,530	1,344	303
	Rate per 100,000 per annum.			21·5	28·4	19·3	8·2
Measles	Total Deaths.....	3,215	4,257	5,178	3,995	3,290	2,035
	Rate per 100,000 per annum.	72·4	86·2	96·1	74·3	47·5	55·3
Whooping Cough	Total Deaths.....	4,779	4,968	4,723	3,224	3,304	1,688
	Rate per 100,000 per annum.	107·6	100·6	87·6	60·0	47·7	45·9
Smallpox	Total Deaths.....	1,673	2,374	908	88	195	1
	Rate per 100,000 per annum.	37·6	48·1	16·8	1·6	2·8	·002
Phthisis	Total Deaths.....	15,572	16,476	13,754	11,436	12,632	5,533
	Rate per 100,000 per annum.	350·7	333·9	255·3	212·9	182·7	150·6

† City Boundaries extended in 1895. * Records not available.

TUBERCULOSIS.

A highly gratifying feature in regard to tuberculosis is the remarkable decline in the disease which in the last half century has accompanied the progress of improved sanitation throughout the country. In this city this diminution, if it stood alone as the only result of the outlay upon measures designed to improve the public health, would fully justify the expenditure involved.

One great sanitary defect which has in all Liverpool's history been closely associated with tuberculosis has been the construction of its mean and narrow streets and alleys, and the thousands of the insanitary court and cellar dwellings, which, housing 120,000 people as they at one time did, constituted a gigantic experiment upon man so far as the causation of tuberculosis is concerned.

Nothing is more instructive than a careful study of these and other difficulties, which were overcome only at the cost of millions of money and years of labour, but which even now leave plenty of work for the present generation, although we hope that five years will see the last of back-to-back houses, and we know that after 1912 no cellar dwellings will remain in the city.

The policy has been directed with a view to approximate the living places and the surroundings of the people to the requirements of health, to remove the conditions favourable to disease, and to substitute those under which an ordinary decent life is made possible.

Obviously it is quite impossible to allocate to each measure its precise share in the limitation of phthisis and in the general improvement in health, but one incident connected with housing operations does so forcibly suggest cause and effect as to deserve further reference:—On certain of the insanitary areas which have been cleared by the Corporation some 2,400 dwellings have been erected by the Corporation under

good and appropriate conditions of construction, which are let exclusively to the former tenants of the demolished areas, or to tenants who have been dispossessed by the Corporation from equally insanitary dwellings in the vicinity. At least 80 per cent. of the occupants of these Corporation dwellings were previously the occupants of the former insanitary areas, most of them in extreme conditions of poverty and dependent upon precarious labour for a living.

At the time these insanitary areas were condemned, evidence was available to show that for many years there had been a remarkable incidence of phthisis amongst these people, the average annual death rate approximating to 4 per 1,000. The rate amongst these same people in their new surroundings has now fallen during the last two years to 1·9 per 1,000, the most material difference in their circumstances being the change from a dwelling which was unfit for human habitation to a dwelling that is fit, together with such alterations in their social habits as ensue from this change.

The rôle of the Sanatorium is too well known to need any lengthy reference now. The usefulness of isolation has been lessened—minimised perhaps—by the desire to receive into Sanatoria only such patients as may be expected to make an early recovery. Comfortable surroundings in a pure atmosphere, abundance of food, regular living, warmth, suitable clothing, rest, with carefully graduated exercise or agreeable recreation have, as might be supposed, an extremely beneficial effect upon the consumptive, ameliorating his condition in most cases, and in many leading, if not to complete recovery, at all events to a cessation of the destructive processes. These results follow more conspicuously when the patient is removed in the early stage.

That relapses ensue in a disappointingly large number of cases when the patient returns to his former surroundings, or even to his daily work, has not been sufficiently emphasised, and the too sanguine expectations held out have resulted in disappointment. The necessary length of the treatment has itself proved an obstacle. The breadwinner, knowing that his family are dependent upon others, and feeling himself well, is unwilling to prolong his stay for such a period as will ensure recovery, and indeed is frequently unwilling to enter a hospital at all.

Great benefit will result when any successful scheme can be devised for the support of the household whilst the breadwinner is in hospital; there

can be little doubt that there will be a residuum in this, as in other forms of sickness and disaster, in which dependents must, under existing conditions, turn ultimately to the Poor Law for relief and support.

The many apparently hopeful results of the Sanatorium treatment have obscured the importance of the supervision of the patient after he has left the Sanatorium, and it has not yet received general recognition that the return of a patient to bad surroundings, whether in his work or his home, will almost surely bring about a relapse. From the preventive aspects of the question, the real need at the present time is for more suitable accommodation for patients in more advanced stages of the disease; it is with these that risk of infection arises, and the isolation of this class of patient must be arranged for on a far more liberal scale than has hitherto been the case. Several sanitary authorities, notably that of Edinburgh, have made provision for this class of case in connection with the Corporation Isolation Hospital; by a judicious classification all unwillingness on the part of the patients to remain in the institution is removed.

The educational value of the Sanatorium as a training place for the patient is very great. Those who visit the consumptives in their homes find almost invariably that the instructions which have been given are followed as fully as the surrounding limitations will permit.

The work of revisiting the patients at their homes with a view to giving them some encouragement, and to note whether or not the advice given them by the doctor was acted upon, has been carried out for several years by trained inspectors. But it was always felt that there were many things which might escape the notice of an inspector, however intelligent and well-trained, but which would arrest the attention of a medical man, and it was therefore thought desirable that the work should be carried on by, or under the supervision of, a specially qualified medical visitor. This view has now been given effect to, and Dr. Hawksley is at the present time devoting his whole time and undivided attention to these duties, and his services are specially valuable in linking up—so as to lessen to some extent the overlapping of work—various agencies at present doing valuable work in dealing with tuberculosis.

The medical inspection of school children also is, as might be expected, proving of value in this connection, not only by the detection in school

of children who may be suffering from phthisis, but still more by the attention which is given to the condition with regard to lighting and ventilation of the school-rooms themselves, many of which, even now, are much in need of alterations and improvements, whilst others, owing to medical inspection of the schools themselves, have during the last ten or twelve years been pronounced unfit for the purposes of teaching, and have been closed altogether.

Phthisis amongst school children is no doubt relatively rare, but even putting it at less than 1 per cent., say ·5 per cent. of the scholars, yet this amongst so large a number of school children as there are in Liverpool means not less than 600 or 700 phthisical children.

The attention of the Education Committee has for a very considerable time been called to the question of special school accommodation for these children, but unhappily nothing has resulted so far.

In addition to the Consumption Hospital and the Liverpool Dispensaries, the Royal Infirmary, Royal Southern Hospital, Northern Hospital, Stanley Hospital, Hahnemann Hospital, and the Medical Mission through their Out-patient Departments afford much assistance in the diagnosis and notificaton of phthisis.

The greater number of cases so diagnosed are recommended to place themselves under the care of the Consumption Hospital, but a few are prescribed for and supervised by these Out-patient Departments. One of the advantages resulting from this latter course is that medical students have excellent opportunities of becoming familiar with the exact diagnosis of all phases of pulmonary tuberculosis, the importance of which from a public health point of view can scarcely be over-estimated.

Further, any Institution or private practitioner can, if they wish, have sputum examined by the Corporation Bacteriologist at the cost and charges of the Health Committee.

At the present time, out of funds derived from the rates, four independent Public Authorities in this city are dealing with the subject of tuberculosis as far as it affects the provision of hospital accommodation for the sufferers. Five and twenty years ago, precisely the same observation was applicable to all forms of infectious disease; small-pox, typhus fever, scarlet fever, &c., found their principal accommodation in

institutions provided by the Poor Law Authorities, and not in institutions provided by the Public Health Authority. But the Public Health Authority at that time began to realise its obligations, and the Poor Law Authorities were not slow to recognise that the prevention of all forms of disease, which occurred in acute epidemics, was the province and function of the Public Health Authority, and had only an incidental bearing upon the relief of destitution, which was their own province. But the analogy with the *chronic* epidemic of phthisis has not been appreciated.

The position to-day with regard to phthisis is very similar to the position five and twenty years ago in regard to infectious disease, but with this difference, that the Poor Law Authorities have of recent years spent large sums and are still spending large sums in erecting hospitals, admirable of their kind, for the accommodation of consumptive patients, the chronic duration of whose illness brings them sooner or later into the category of those who are dependent upon financial assistance from rates or from charitable sources. As these insitutions grew, the obligation upon the Public Health Authority became correspondingly less easy to emphasise. At the present time the three Boards of Guardians have some 600 consumptive patients—many scattered up and down amongst other patients—whilst the Public Health Authority, which has amply provided itself with hospitals for ordinary infectious diseases, has not at present more than about 60 beds available for phthisis. It is obvious that a very considerable addition may be made to these without incurring any risk of competing with the Boards of Guardians ; in any case a charge for admission would settle apprehensions on this score, whilst care would be taken to exclude persons adequately provided for in their homes or elsewhere, and under the care of a medical practitioner.

There are many analogies between tuberculosis and the more readily communicable diseases, and Sanitary and Poor Law Authorities alike have long since recognised that ordinary communicable diseases are most suitably dealt with by the Health Authority.

The time may be approaching for a further advance in dealing with tuberculosis by the transfer to the Public Health Authority of such responsibilities connected with tuberculosis as are at present accepted by the Poor Law Authorities, apart from the destitution resulting from it. The subject is a large and intricate one, involving many adjustments, and

probably also additional powers in dealing with consumptives, especially with those whose conduct and habits of life render them dangerous to others.

Negotiations have been opened by the Public Health Authority with the Board of Guardians with a view to consider the whole question of the transference of the treatment of phthisis patients, so that the Poor Law Authority shall be relieved of the burden in exactly the same way as it has been relieved of the burden in the case of small-pox or typhus fever. The Boards of Guardians, however, have so far expressed no anxiety to relinquish the treatment of this form of disease, one at least of them has recently shown a very enlightened policy in giving ample outdoor relief during the period that the bread-winner is in the Poor Law Institution.

Whilst the existing arrangements, when further supplemented by the Public Health Authority, possess certain advantages, the objections are numerous: in the first place the amount of overlapping adds to administrative difficulties, and the multiplying of staffs and of organisations adds to expense; the task of classification of cases under treatment is less easy; and a still more serious objection, too, arises from the sentiment of aversion on the part of many patients to go into a Poor Law Institution, and however groundless it may be, it is there and has to be reckoned with; whilst conversely there are the cases of patients with no home suitable for an invalid with very advanced disease and for whom no institution is available, or if he be induced to enter the Workhouse Infirmary, will, in opposition to his own interests, as well as those of the public, insist upon leaving the Poor Law Institution at a time when it is most desirable that he should remain within it.

I doubt whether it would be an easy matter to obtain Parliamentary powers such as those which all Public Health Authorities possess in regard to other communicable diseases, for the compulsory detention of a consumptive patient in a Poor Law Institution, or for his removal there.

A further important advantage which would result from the unification of administration would be that some connected scheme for providing suitable employment for patients on discharge from the hospital would be facilitated, and the common experience of relapse which follows the return to unsuitable employment would be more easily avoided.

One-eleventh part of the total pauperism of this country is calculated to be due to phthisis. The total pauperism costs the country about £11,000,000 per year, so that the disappearance of phthisis would mean a financial saving to the country from this point of view alone of £1,000,000 a year.

Notification of Phthisis.

About fifteen years back a considerable controversy existed as to the desirability or otherwise of making the notification of phthisis compulsory, but it was obvious that at that time public opinion was not ripe for it, whatever arguments can be adduced in favour of such a measure to-day.

In Liverpool a system of voluntary notification was established early in 1901 for all forms of tuberculosis. This, in the case of phthisis, has proved very valuable, and it is interesting to see by the chart that under this voluntary system, which was adopted also in some other towns, as large a proportion of cases was notified as was the case in the one or two towns which later on adopted the "compulsory" system. It was, I now think, unnecessary to include forms of tuberculosis other than phthisis, as no compensating advantage resulted from these notifications. Whether all cases of phthisis should be scheduled for notification is really a matter for the medical profession to determine, and largely upon grounds of its own convenience, since it would appear that under the voluntary system practically all cases are notified in which the Public Health Authority can be of service.

With regard to the orders of the Local Government Board relating to the compulsory notification of pauper consumptives, although it is a common experience for the same cases to be notified many times over, yet no complaint is to be laid against it on that score, and the general results are highly advantageous. For obvious reasons the adoption of compulsory notification of pauper consumptives has been accompanied by a fall in the number of voluntary notifications.

REPORT ON HOME CASES.

In addition to special home visitation by Dr. Hawksley, two Sanitary Inspectors have now been engaged on the work of home visitation for a

period of three years. During this time they have gained the necessary experience in the work to enable them to note and report with accuracy the conditions under which phthisical persons are situated at home, their visits being repeated at intervals of a few months, or oftener, if necessary.

To maintain the best possible conditions in the home, the Instructions for Consumptive Persons and those who live with them, have, for many years, been widely circulated, supplemented where necessary by oral explanation by the Inspectors. The result of the dissemination of information has led to a recognition of the advantages of securing and maintaining the air of the dwellings as fresh and sweet as possible, the open window is more in evidence, and the appreciation of general cleanliness is more prevalent. It is interesting to record that there are instances where school children have made themselves familiar with some of the matters referred to in the instructions. There also appears to be a willingness to carry out any precaution which will tend to prevent infection; indiscriminate expectoration is avoided, and it is now understood that the sputum from the patient should be quickly disposed of by burning. Following the usual intermittent attacks of indisposition, the period of sickness ranges from a few weeks to six months.

Disinfection of the premises has been carried out in all cases after the patient has been removed to hospital, or where death has occurred, and in 171 instances disinfection has been carried out during the course of the disease; there is an increasing desire to have the patient's room occasionally sprayed. Whilst there are cases where careless and intemperate habits prevail, there are also many instances where general poverty, mainly as the result of casual employment, the lack of suitable food, adequate bedding, &c., renders the possibility of recovery remote.

In quite a number of cases material help has been given as a result of the Inspectors' reference to Local Voluntary Aid Societies.

Some patients of the migratory class constantly move to other addresses, and are lost sight of until the case is again notified.

During the year 1910, 1,780 cases have been under observation, 556 of these being brought forward from 1909.

The facts contained in the following pages relative to Home Cases may be briefly summarised as follows:—

561 cases are not at present under medical treatment.

344 are school children, many are in attendance at schools.

1,670 are natives of Liverpool.

218 at present reside in insanitary court houses or cellars.

117 occupy a single room in a sub-let house.

In 591 instances other members of the family were said to have suffered from the disease.

,, 18 instances the origin of the disease is attributed to direct infection from work-mates or other phthisical persons.

,, 156 instances the patient was intemperate.

ANALYSIS.

947 Males. 833 Females

300 have died.

69 have received treatment at the Sanatorium attached to Fazakerley Hospital. These cases are not re-visited by the Sanitary Inspector, but are dealt with by the Assistant Medical Officer.

25 are not being re-visited.

448 have removed, their present addresses being unknown.

127 were, at the time of last re-visit, found to be inmates of the following institutions, viz.:—Walton Workhouse Hospital, 16; Toxteth Workhouse Hospital, 17; Mill Road Infirmary, 29; Brownlow Hill Workhouse Hospital, 21; Highfield Infirmary, 7; Heswall Sanatorium, 7; Fazakerley Hospital, 14; Woolton Convalescent Home, 1; Daneswood Sanatorium, 2; Freshfield Sanatorium, 2; West Kirby

Convalescent Home, 3; Hoylake, 1; Cottage Homes, Fazakerley, 1; Royal Southern Hospital, 1; Northern Hospital, 2; Kirkdale Homes, 2; Stanley Hospital, 1.

811 are at present at home.

1,780

Of these 811, 20 were confined to bed; 230 were under medical treatment, either at Dispensaries and Hospitals, or under the care of Medical Practitioners; and 561 were mostly progressing favourably, and were not at time of last visit actually receiving medical treatment; the majority seek medical advice as occasion requires.

AGES.

The ages of the patients, together with the percentage in relation to the total number of cases is shown in the following table:—

Under 15 years.	16 to 30 years.	31 to 50 years.	Over 50 years.
512 or 28·76%	504 or 22·69 %	620 or 34·26 %	144 or 8·08 %
Average Age 8·77	Average Age 23·95	Average Age 38·75	Average Age 56·60

Of the patients under 15 years, 344 are of school age, and the majority are in attendance at various schools within the city.

BIRTH FLACE.

1,670 were born in the City. Of the remaining 110 cases, 19 are foreigners from various European countries, and 91 were born in other towns.

CLASS OF DWELLING.

604 or 33·93 per cent. occupy six roomed dwellings and upwards, not sublet.

439 ,, 24·66 per cent. occupy four-roomed dwellings in sublet houses.

96	or	5·39 per cent. occupy three-roomed dwellings in sublet houses.
32	,,	1·79 per cent. occupy two-roomed dwellings in sublet houses.
274	,,	15·39 per cent. occupy two or more rooms in sublet houses.
117	,,	6·57 per cent. occupy one room in sublet houses.
39	,,	2·19 per cent. occupy insanitary cellars.
179	,,	10·05 per cent. reside in court houses and houses of court type.
1,780		

The average number of occupiers in each house where there is Phthisis is 6·43.

FAMILY HISTORY.

In 591 instances a definite record of the previous existence of the disease in the family was given. The relatives affected were stated to be as follows:—

Father	Mother.	Sister.	Brother.	Husband.	Wife.	Paternal Relative.	Maternal Relative.	Other Relatives.	Total.
162	153	44	75	23	13	37	46	38	591

In 61 of the above cases more than one member of the family had previously suffered from phthisis. In 25 cases both parents of the patient had died from the disease. In the remaining 1,189 cases there was either no record of phthisis, or no information could be obtained, although careful inquiry was made. In 18 instances the origin of the disease was attributed to direct infection from workmates and other phthisical persons.

HABITS.

It will be noted with interest, that the larger number are in an environment which is helpful to the patient, and which also tends to prevent the further spread of the disease. But in 55 instances, or 3·08 per cent., the habits of the patients were found to be both dirty and intemperate. In 40 instances, or 2·24 per cent., the habits of the patients were dirty,

and in these cases the re-visits have led to improvement in the condition of cleanliness. In 101 instances, or 5·67 per cent., the habits of the occupiers were clean, but the patient was intemperate. In 1,584 remaining instances, or 88·98 per cent., the habits of the patient were clean and temperate.

ISOLATION.

With regard to the degree of isolation, 579 occupy a separate bedroom; 66 have a separate bed, but the room is shared by others; in 535 cases the patient's bed was shared by others at time of visit.

In 135 instances the patient uses the same room for living and sleeping.

Although so many cases occupy a separate bedroom, in only a few instances is the degree of isolation complete. Unless actually confined to bed the patient mixes freely with the other occupiers of the house. Where this is the case, the necessity for the proper observance of the precautions with regard to the disposal of sputum and the maintenance of ventilation is impressed upon the occupiers.

OCCUPATIONS

Actors	2	Bottle Blowers	1
Artists	2	Bricklayers	4
Barmen	10	Brushmakers	3
Bakers	12	Brass Moulders	1
Bag Makers...	19	Brass Finishers	3
Boiler Makers	3	Butchers	3
Boiler Scalers	14	Carters	37
Bookbinders	4	Cab Drivers...	4
Bottlers	3	Cabinet Makers	5
Bottle Washers	5	Canvassers	3
Billiard Markers	1	Carpet Planners	1
Bill Posters...	2	Carpet Beaters	1
Blacksmiths	2	Cardboard Box Makers	1
Blue Factory Hands	1	Cattle Drovers	3

OCCUPATIONS.—*Continued.*

Clerks	... ...	31	
Charwomen	... ...	41	
Coal Heavers	... ...	8	
Coachmen	... ...	1	
Coopers	... ...	4	
Cotton Spinners	... ...	1	
Copper Workers	... ...	1	
Carpenters	... ...	1	
Compositors	... ...	4	
Confectioners	... ...	1	
Cotton Sorters	... ...	3	
Domestic Servants	... ...	42	
Dock Labourers	... ...	98	
Drapers	... ...	2	
Dressmakers	... ...	3	
Ex-Soldiers	... ...	8	
Ex-Sailors	... ...	5	
Ex-Policemen	... ...	1	
Engineers	... ...	3	
Engine Drivers	... ...	5	
Enamellers	... ...	3	
Engravers	... ...	1	
Errand Boys	... ...	6	
Electricians	... ...	1	
Estate Agents	... ...	1	
Fitters	... ...	1	
French Polishers	... ...	2	
Flour Mill Hands	... ...	4	
Feather Pickers	... ...	2	
Floor Floggers	... ...	1	
Furniture Removers	... ...	2	
Fruit Pickers	... ...	2	
Florists	... ...	1	
Fish Curers	... ...	1	
Gardeners	... ...	1	
Green Grocers	... ...	1	
Hawkers	... ...	27	
Hairdressers	... ...	3	
Hospital Nurses	... ...	2	
Horse Keepers	... ...	1	
Hotel Servants	... ...	1	
Housewives	... ...	305	
Iron Workers	... ...	1	
Iron Moulders	... ...	2	
Insurance Agents	... ...	3	
Jewellers	. . ..	1	
Joiners	... ...	7	
Labellers	... ...	1	
Laundresses	... ...	10	
Labourers	... ...	99	
Lint Workers	... ...	1	
Lithographers	... ...	1	
Library Attendants	... ...	1	
Lift ,,	... ...	1	
Maltsters	... ...	1	
Marine Firemen	... ...	20	
Messengers	... ...	4	
Midwives	... ...	1	

OCCUPATIONS.—*Continued.*

Milk Dealers	1	Rope Makers	4
Milliners	1	Rubber Workers	1
Metal Drum Makers	2	Seamen	20
Machinists	4	Seamstresses	1
Musicians	5	Scavengers	6
News Agents	5	Shunters	1
No occupation	195	Ships' Stewards	10
Night Watchmen	8	Ships' Cooks	9
Oakum Pickers	1	Shoe Makers	9
Oilcake Workers	11	Shop Assistants	16
Painters	25	Shopkeepers	2
Paint Mixers	1	Shipwrights	3
Picture Framers	1	Scale Adjusters	1
Packing Case Makers	3	Smelters	1
Porters	30	Sweeps	1
Plumbers	3	Shoeblacks	1
Plasterers	5	Storekeepers	1
Plate Cleaners	1	Stone Polishers	1
Packers	6	Stone Masons	4
Paper Bag Makers	1	Smiths' Strikers	4
Pattern Makers	2	Solderers	2
Porters (Railway)	8	Spice Packers	1
Postmen	2	Sugar Boilers	1
Poulterers	1	Stokers	2
Printers	3	School Children	344
Rag Pickers	6	Tailors	13
Rat Catchers	1	Tailoresses	7
Refrigerator Pipe Fitters	1	Travellers	1
Rivetters	2	Tram Drivers	2

OCCUPATIONS.—*continued.*

Tram Conductors	2	Warehousemen	9
Tobacco Workers	11	Wire Winders	1
Trunk Makers	2	Wood Carvers	2
Upholsterers	3	Wardrobe Dealer	2
Window Cleaners	4	Vanmen	3
Waiters	1		

SUMMARY.

Indoor Occupations	746
Outdoor ,, ...	495
School children	344
No occupation	195
Total	1,780

SCHOOL CHILDREN.

On December 31st, 1909, there were 90 school children on the re-visit list, and during the present year 254 new cases were added, making a total of 344 cases notified as suffering from Pulmonary Tuberculosis, the majority being in attendance at Public Elementary Schools. During the year 14 have died; 22 have been treated at Fazakerley Hospital; 41 have removed from their original address and have temporarily been lost sight of; and 267 school children were still under observation on December 31st, 1910.

Many of these children reside in densely populated districts, their homes do not afford the opportunity for adequate rest, and in many cases, owing to poverty, a suitable and regular dietary is seldom obtained.

In 90 instances the child has received the advantage of Sanatorium treatment, and on returning home, in most cases, the marked improvement has been maintained.

The 110 Public Elementary Schools attended by these children are not confined to any denomination, but it is significant to find that the schools in which the largest number of cases are to be found are those situated in the more crowded areas, and are also attended by other children who are not always fully provided with the adequate clothing and suitable food. Schools situated beyond the old city area have relatively fewer cases.

The type of dwelling occupied varies in character and accommodation. In 243 instances the dwellings are sanitary, being provided with through ventilation, yard space, and separate water-closet accommodation, and are maintained in a fairly clean condition, but the isolation in some cases might be improved. Forty-two cases are housed in insanitary court houses or cellars. These cellars come within the provisions of Section 28 of the Liverpool Corporation General Powers Act, 1908, and cannot be legally occupied after December 31st, 1912, whilst the Housing Committee are at present operating in localities in which the insanitary court houses are situated. In 59 cases, although the house is otherwise sanitary, the accommodation is limited to one room.

Eighty-six patients were found to occupy separate bedrooms, 45 to have a separate bed in a room shared by others, and 56 sleep with a parent or parents; in 157 instances the patient occupies the same room with a brother or sister, who is at present, or soon will be, in attendance at a Public Elementary School.

Re-arrangement of the sleeping accommodation is frequently planned, and attention is continually directed to the necessity for isolation.

As the result of careful enquiries in every case, the family history discloses the fact that in 166 instances the parents or some other relative have either died or are at present suffering from phthisis.

It is to be expected that the greater attention given to the incidence of this disease will lead for a time to an increase of the number of notifications, owing to a more careful diagnosis of the disease, and a probably increased number of deaths from the disease will also be recorded.

List of Schools attended by Children suffering from Pulmonary Tuberculosis:—

School.	No. of Children	School.	No. of Children
Council, Queen's Road	3	Council Roscommon Street ...	3
,, Dingle Lane	4	,, Rice Lane.....	1
,, Oakes Street	2	,, Broad Green Road ...	2
,, Boaler Street	4	Harrington Council.....	4
,, Earle Road	8	Rathbone Council	3
,, Arnot Street	1	South Corporation	1
,, Longmoor Lane	1	South C.E.	3
,, Granton Road	2	St. Benedict's C.E., Kepler Street	4
,, Heyworth Street	2	St. Simon's C.E., Bronte Street...	1
,, Lawrence Road	6	St. Margaret's C.E., Prince's Rd.	1
,, Stanley Road	3	St. Cleopas' C.E., Beresford Rd.	3
,, Venice Street	1	St. Saviour's C.E., Canning Street	4
,, Steers Street	4	St. John's C.E., Toxteth	1
,, Chatsworth Street	7	St. George's C.E., Everton	2
,, Tiber Street	7	St. Bride's C.E., Grey Street.....	6
,, Sherlock Street	6	St. Luke's C.E., Colquitt Street	3
,, Ashfield Street.....	2	St. Clement's C.E., Dove Street	7
,, Beaufort Street	4	St. Augustine's C.E. Salisbury Street	5
,, Upper Park Street	4	St. Polycarp's C.E., Gordon St...	8
,, Granby Street	1	Holy Trinity C.E., Ashwell Street	4
,, Hey Green Road.....	3	Holy Trinity, Walton Breck.....	1
,, Banks Road	1	Christ Church C.E., Christian St.	7
,, Fonthill Road	1	Old Church C.E., Moorfields.....	1
,, William Henry Street...	2	St. James' C.E., St. James Road	3
,, Townsend Lane	3	St. Paul's C.E., Byles Street.....	1
,, Soho Square.....	7	St. Silas' C.E., Toxteth	1
,, Neilson Road	1	St. Thomas' C.E., Grafton Street	1
,, Westminster Road	1	St. Stephen's C.E., Smithdown Lane	2

School.	No. of Children	School.	No. of Children
St. Bridget's C.E., Bagot Street	1	St. Anne's R.C., Goulden Street	4
St. Martin's C.E. Blenheim Street	1	All Souls' R.C., Collingwood St.	3
Fairfield C.E.	3	Our Lady's R.C., Northumberland Terrace	4
Emmanuel C.E., Mill Road	3	St. Alphonsus' R.C., Great Mersey Street	3
St. Chrysostom's C.E., Mill Road	1	SS. Thomas and William R.C., Edgar Street	5
St. Mary's C.E., Kirkdale.....	1	St. Bernard's R.C., Kingsley Road	1
St. John's C.E., Tuebrook..... .	1	St. Mary's R.C., Lower Milk St.	2
St. Silas' C.E., Pembroke Place..	1	All Souls' R.C., Eaton Street ...	1
Parkhill Road C.E.....	1	Walton R.C., Rice Lane	1
St. Jude's C.E., Low Hill.....	1	Wesleyan, Windsor Street	1
St. Mary's C.E., Kinglake Street	1	Cranmer Wesleyan, Boundary Street	3
St. Vincent's R.C., Norfolk Street	8	Mount Carmel R.C., Chipping St.	2
St. Bridget's R.C., Limekiln Lane	5	Wesleyan, Whitefield Road.....	1
St. Augustine's R.C., Stone Street	4	Brunswick Wesleyan, Erskine Street	2
St. Oswald's R.C., Old Swan.....	1	Great Homer Street Wesleyan, Prince Edwin Street	3
St. Peter's R.C., Seel Street.....	4	Nash Grove Council, Prince Edwin Street	1
St. Sylvester's R.C. Silvester St.	6	Hebrew Institute, Hope Place...	1
St. Alban's R.C., Boundary St....	4	Caledonian, Oldham Street	2
St. Nicholas' R.C., Copperas Hill	3	Garston National, Banks Road...	1
St. Patrick's R.C., Toxteth	19	Day Industrial, Bond Street.....	1
St. Anthony's R.C., Newsham St.	9	Day Industrial, Addison Street	3
St. Francis Xavier's R.C., Haigh Street	13	North Corporation, Bevington Bush	2
Our Lady's R.C., Eldon Street...	2	Special, Dingle Lane	1
Holy Cross R.C., Fontenoy Street	7	Special, Chatham Place	1
Bishop Goss R.C., Cazneau Street	12	Fazakerley Homes	1
St. John's R.C., Sessions Road...	4	Private, 195, Mill Street	1
Sacred Heart R.C., Mount Vernon Street	2		
St. Hugh's R.C., Earle Road ...	1	Total	344

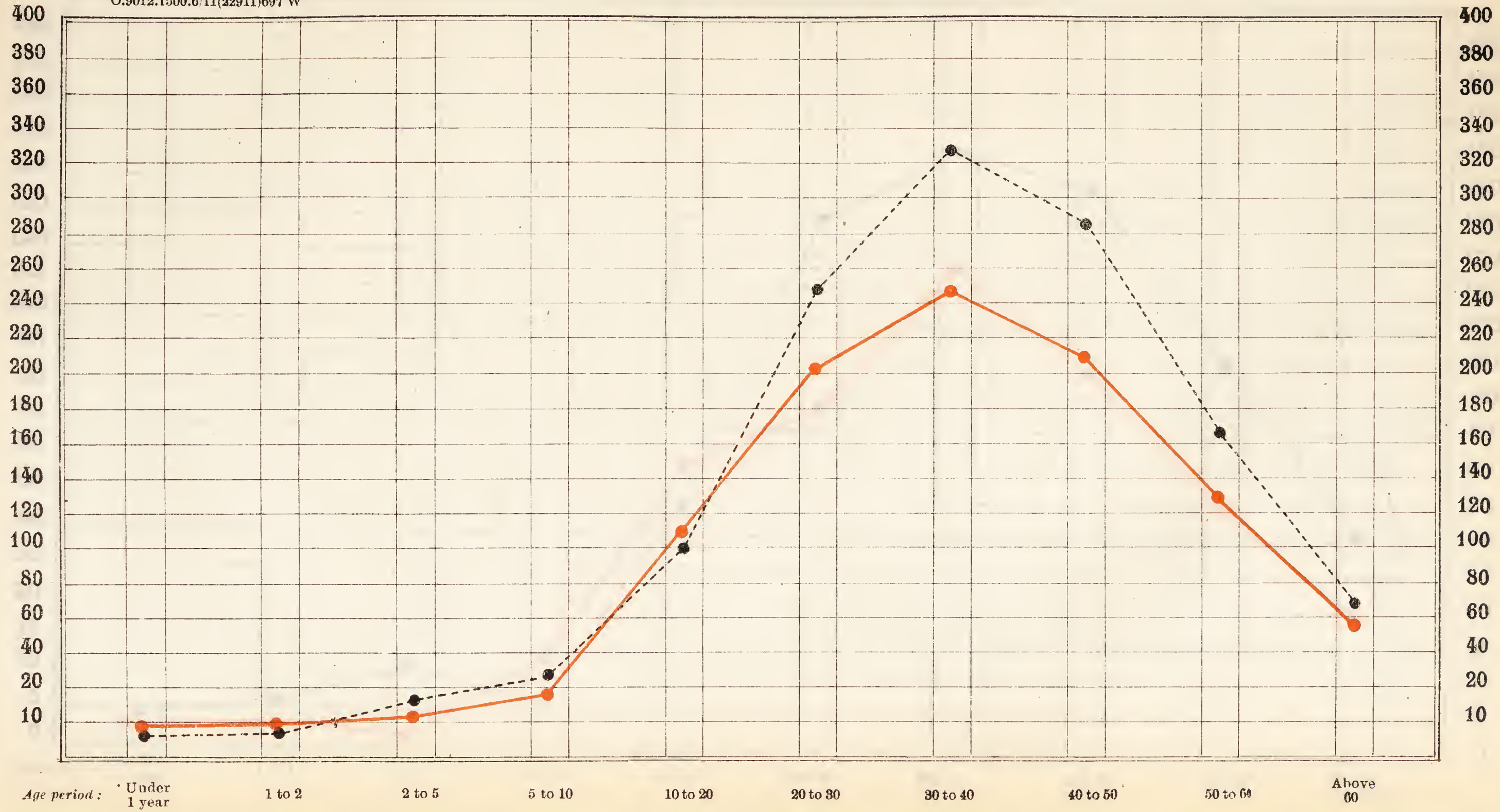
TABLE SHOWING PROGRESSIVE DECLINE IN TUBERCULAR DISEASES DURING THE LAST FOUR DECADES, AND DURING THE FOUR YEARS 1906-10.

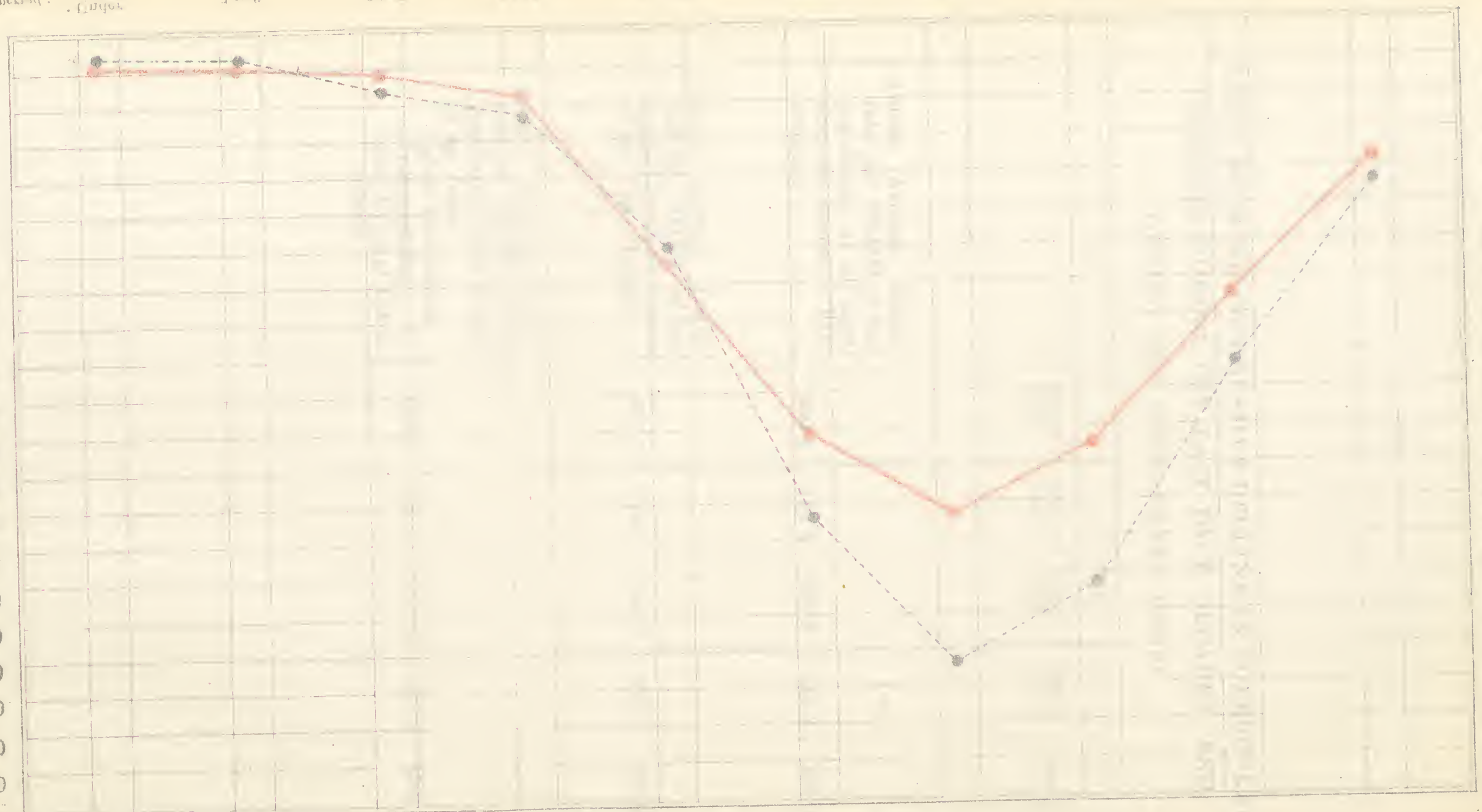
	1866 to 1875.	1876 to 1885.	1886 to 1895.	1896 to 1905.	1906-10.
Annual Average Death-rate per 100,000 of the population, at all ages, from all forms of Tuberculosis	430·8	349·8	309·8	247·2	201·1
Annual Average Death-rate per 100,000 of the population above 5 years of age from Phthisis ...	362·8	278·6	244·4	203·8	168·0
Annual Average Death-rate per 100,000 of the population below 5 years of age from: Tabes Mesenterica Hydrocephalus ... Other forms of Tuberculosis.	637·1	597·3	539·1	339·5	262·7

CITY OF LIVERPOOL.

Comparative view of the number of Deaths from Phthisis at ten different age periods during the year 1910 shown in Red, the average for the preceding ten years (1900-1909), being shown in the Black dotted line.

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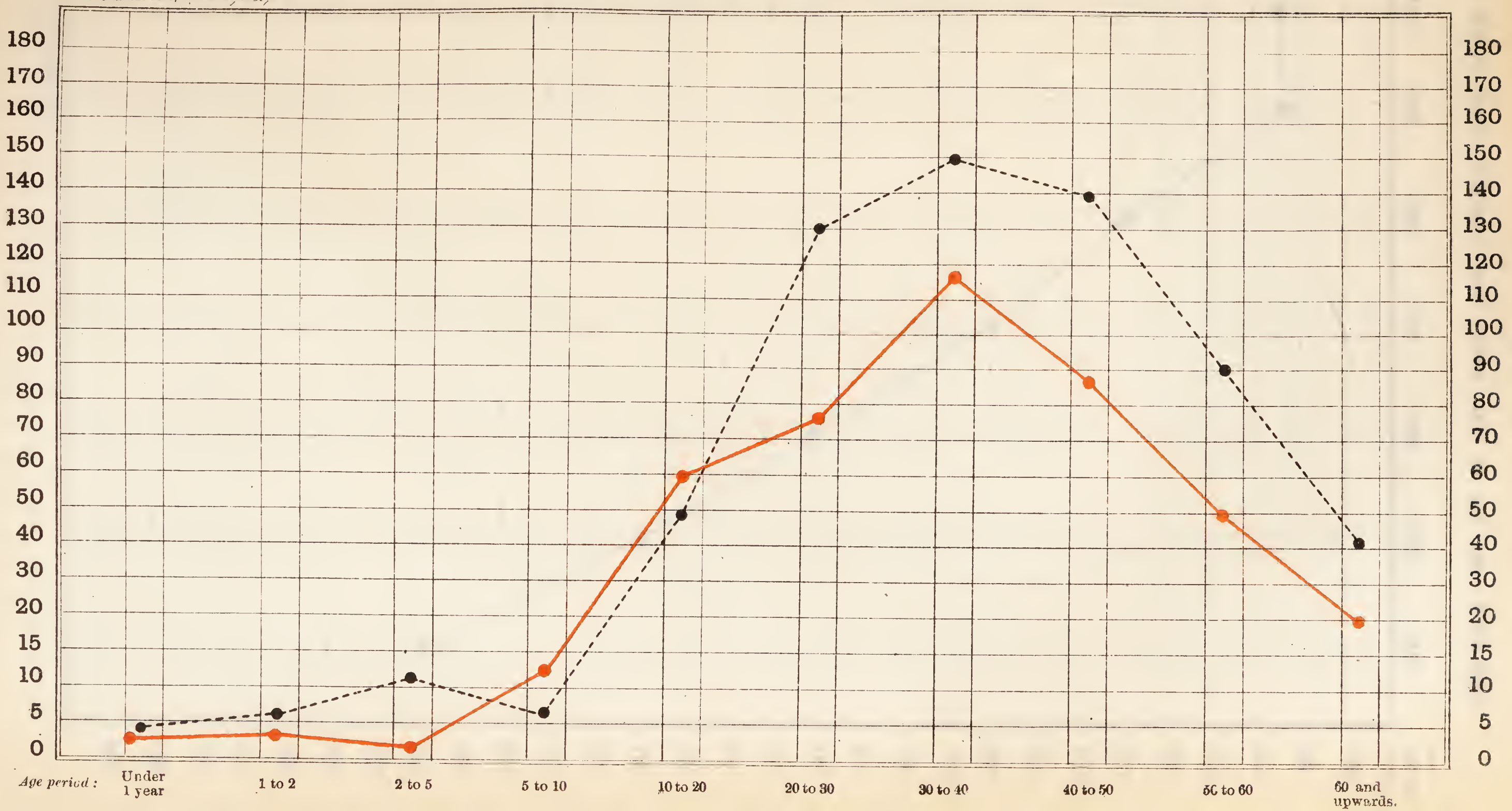


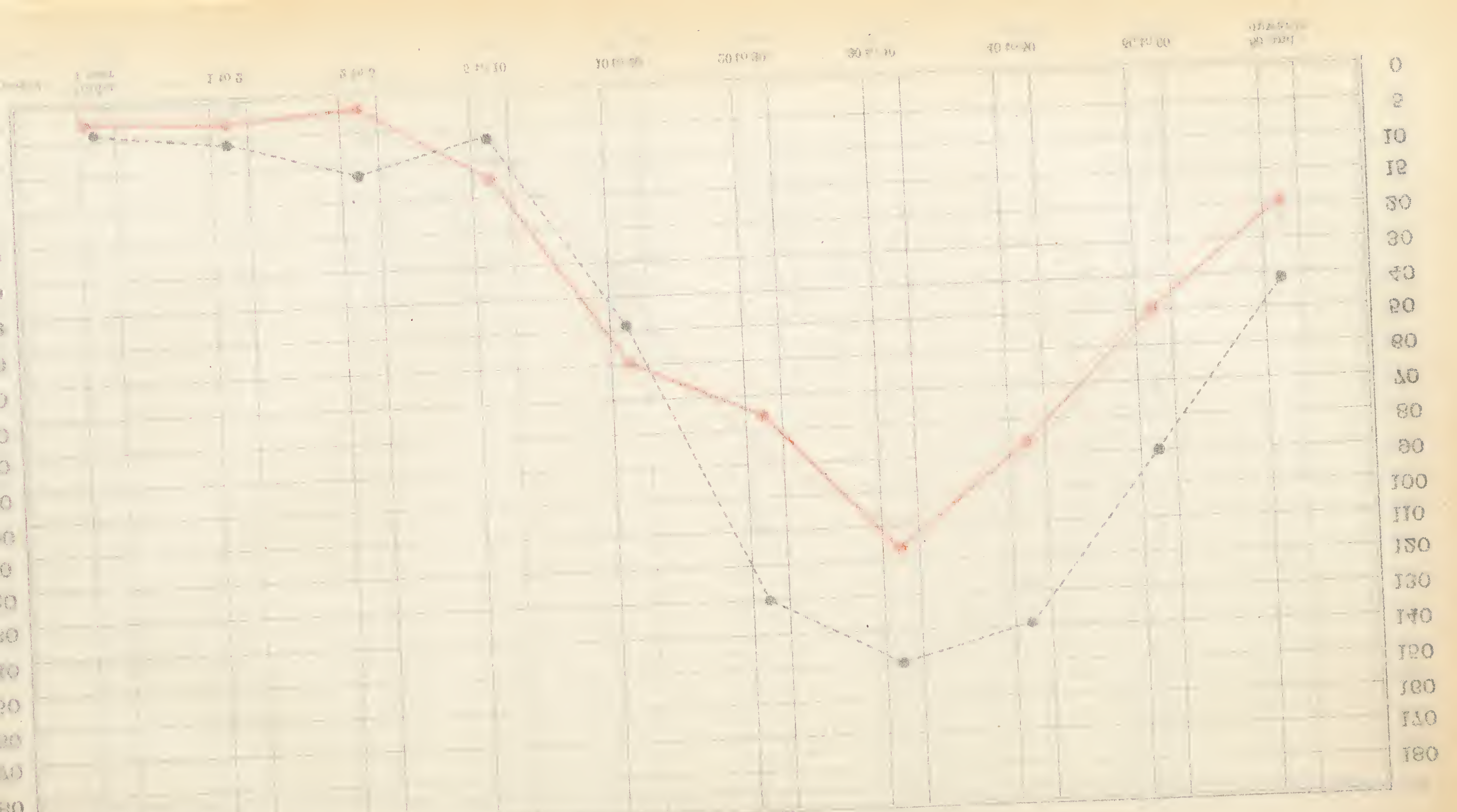


CITY OF LIVERPOOL.

Comparative view of the total number of Deaths from Phthisis of Males and of Females at ten different age periods during the year 1910, Males being shown in Black dotted line and Females in Red.

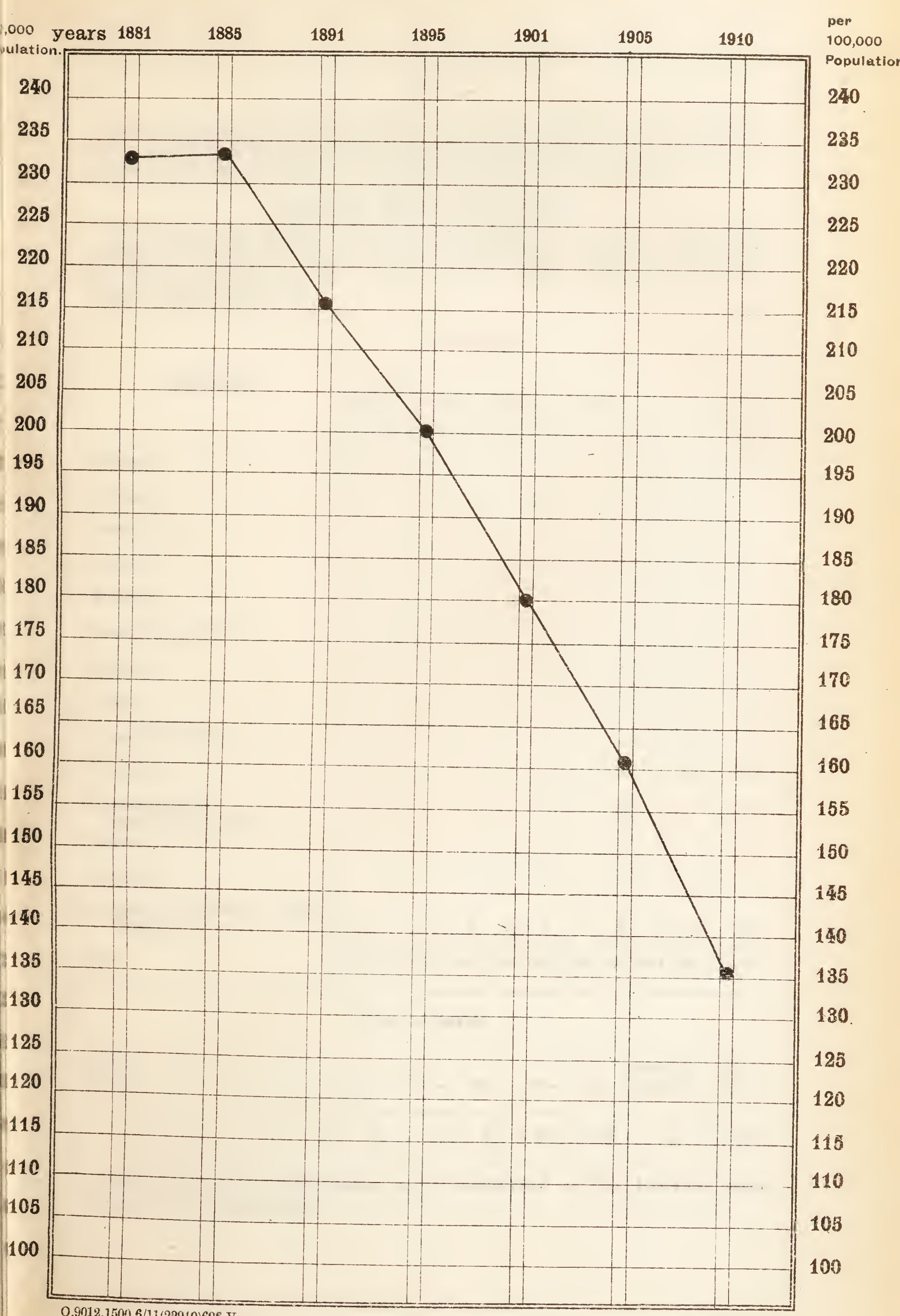
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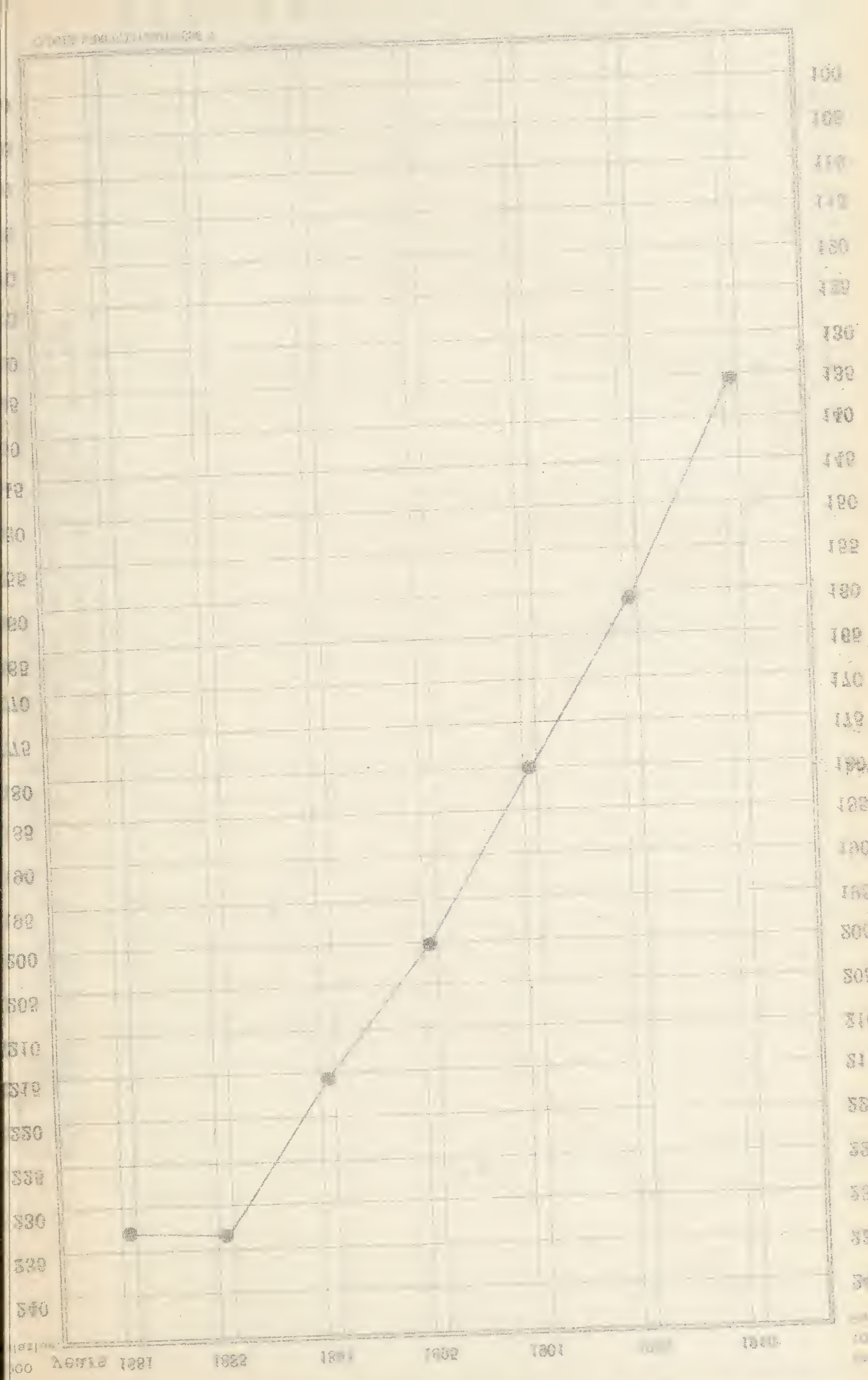


CITY OF LIVERPOOL.

Death Rates from Phthisis—both sexes, and at all ages—1881-1910.



O.9012.1500.6/11(22910)696 V



The Group of Tubercular Diseases includes Phthisis, Tabes Mesenterica, Hydrocephalus, and other forms of Tuberculosis. They occasioned 1,453 deaths in the City of Liverpool during the year 1910.

DEATHS FROM PHTHISIS.

The number of deaths from Phthisis during the year was 1,116. The number of deaths during each of the preceding ten years, 1900-1909, has been as follows:—1,287, 1,302, 1,347, 1,258, 1,282, 1,245, 1,235, 1,183, 1,288 and 1,116.

DISTRICTS.	Quarters.								Year.		
	March.		June.		Sept.		Dec.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Scotland	19	12	25	8	12	7	9	6	65	33	98
Exchange	20	7	29	6	15	12	16	8	80	33	113
Abercromby	13	9	13	8	9	6	5	12	40	35	75
Everton	31	17	31	21	25	25	20	20	107	83	190
Kirkdale	16	10	10	10	12	10	9	6	47	36	83
West Derby (West)	29	12	16	15	13	10	19	8	77	45	122
Toxteth	18	19	17	7	16	12	17	14	68	52	120
Walton	6	3	13	4	11	6	13	9	43	22	65
West Derby (East)	12	8	9	11	8	6	9	2	38	27	65
Wavertree	7	5	2	6	4	6	8	5	21	22	43
Toxteth (East) ... . (late Toxteth Rural)	1	2	...	1	2	2	1	3	4	8	12
Garston	3	...	1	3	1	1	4	2	9	6	15
Fazakerley	...	3	1	...	...	1	...	1	1	5	6
Hospitals (Residences outside the City)	11	3	15	4	10	5	8	9	44	21	65
City	186	110	182	104	138	109	138	105	644	428	1,072

Ages at Death.

Under 1 year.	1—	2—	5—	10—	15—	20—	30—	40—	50—	60 & upwards.	All Ages.
8	10	14	20	32	79	211	261	229	146	62	1,072

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

DEATHS FROM OTHER TUBERCULAR DISEASES.

Viz.:—Tabes Mesenterica, Hydrocephalus, and other forms of Tuberculosis.

DISTRICTS.	Tabes Mesenterica.		Hydrocephalus.		Other forms of Tuberculosis.		Year.		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
Scotland	1	3	10	3	7	6	18	12	30
Exchange	2	1	4	3	5	4	11	8	19
Abercromby...	2	1	4	1	6	6	12	8	20
Everton	10	8	5	7	16	9	31	24	55
Kirkdale	4	2	6	6	14	4	24	12	36
West Derby (West)	7	8	12	1	4	7	23	16	39
Toxteth	4	6	12	5	16	10	32	21	53
Walton	2	...	1	5	8	4	11	9	20
West Derby (East)	2	1	2	6	3	7	7	14	21
Wavertree	3	5	5	2	5	2	13	9	22
Toxteth (East) (late Toxteth Rural)	2	...	4	10	4	1	10	11	21
Garston	...	2	5	1	1	3	6	6	12
Fazakerley...	1	...	...	...	...	1	1	1	2
Hospitals (Residences outside the City)	4	3	2	1	14	7	20	11	31
City	44	40	72	51	103	71	219	162	381

Ages at Death.

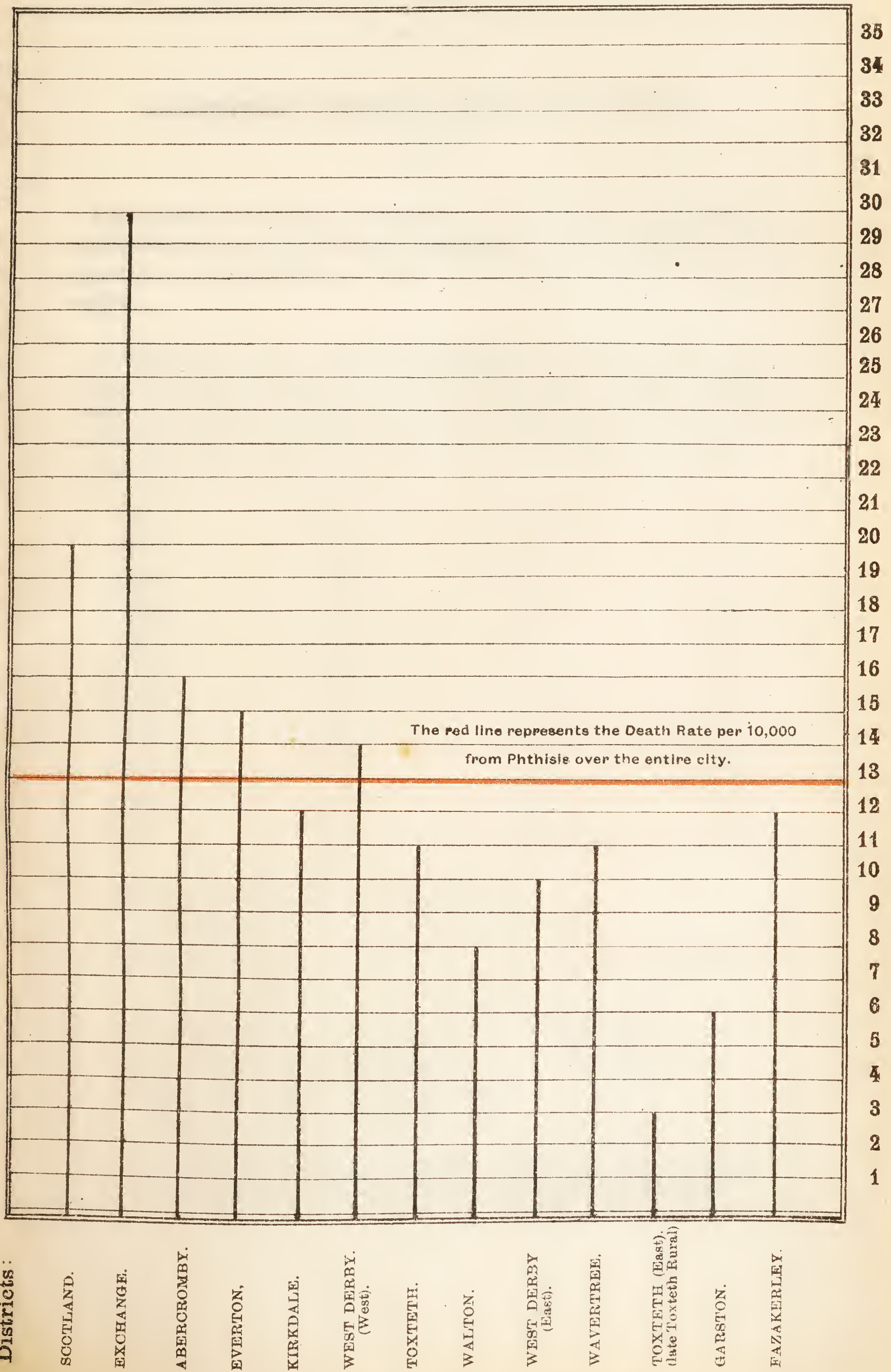
Under 1 year.	1—	2—	5—	10—	15—	20—	30—	40—	50—	60 & upwards.	All Ages.
61	70	81	40	33	20	22	22	12	11	9	381

Deaths in Public Institutions are transferred to the Districts from whence the patients came.

CITY OF LIVERPOOL.

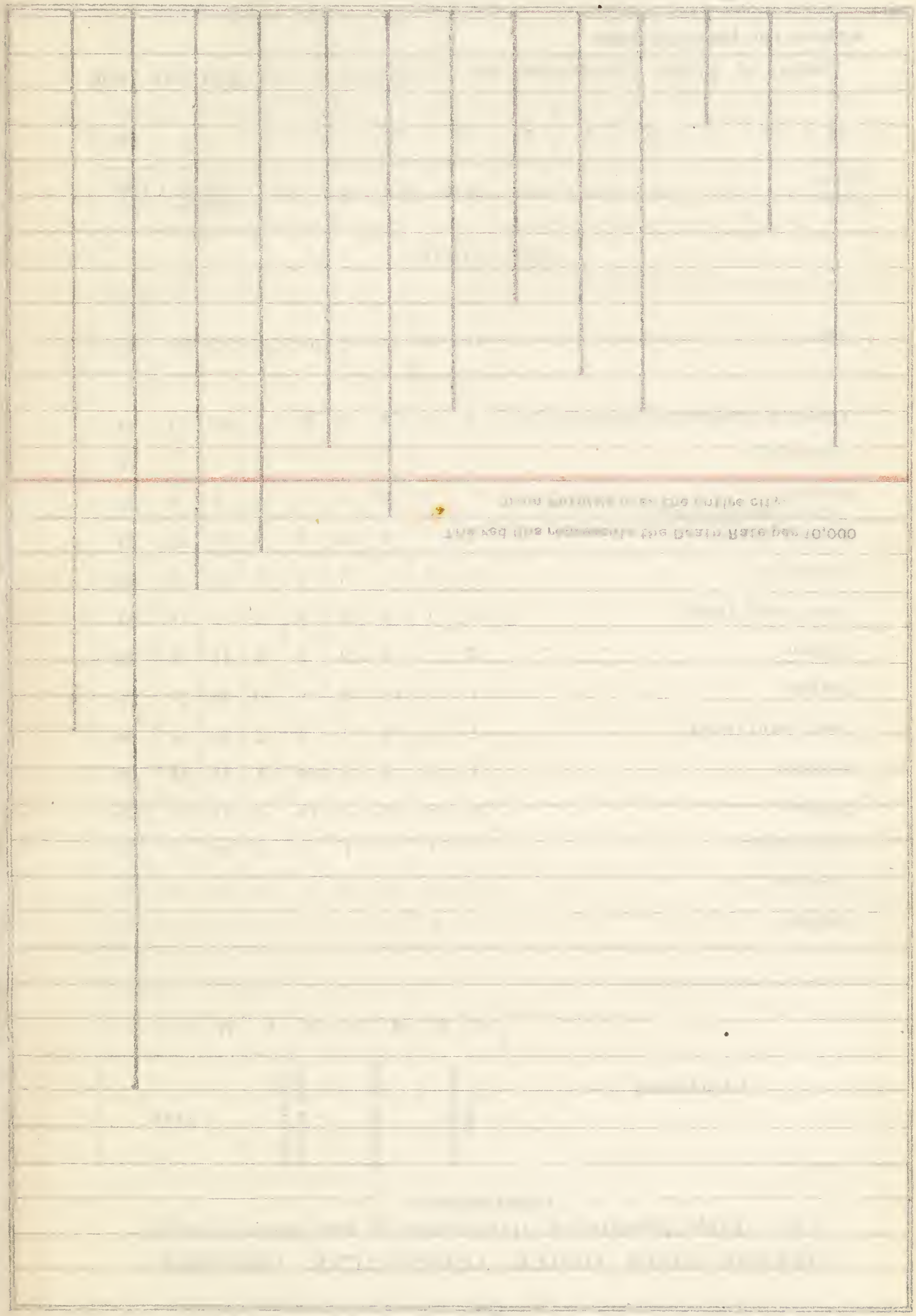
Comparative view of the Death Rate from Phthisis per 10,000 of the Population in the different districts of the City during the year 1910.

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CITY OF HAVERHILL.

Comparative view of the Death Rate from Phthisis per 10,000 of the Population in the different districts of the City during the year 1910.



VOLUNTARY NOTIFICATION OF PHTHISIS.

The system of voluntary notification of those cases of consumption in which the services of the Health Department could be of use came into operation on 14th February, 1901, and has been continued with good results.

A special form upon which the notification can be made has been circulated amongst medical men, and in those cases in which the requirements of the Health Committee have been fulfilled, the usual notification fee has been paid. Since the inauguration of the system the number of notifications has been as follows :—

Year.	Males,	Females.	Total.
1901	1148	649	1797
1902	1469	730	2199
1903	1153	721	1874
1904	1068	641	1709
1905	1257	604	1861
1906	1257	662	1919
1907	1446	784	2230
1908	1373	672	2045
*1909	565	403	968

During the year 1910, the cases notified numbered	1,206	
Of this number	49	were duplicates.
Leaving a total of.....	1,157	Cases.
Rooms, Bedding, &c., disinfected in	447	instances.
Bedding, &c., removed for special disinfection in	40	,,

* The reduction in the number of notifications is due to the large number now notified compulsorily under the orders of the Local Government Board.

It will be noted that only those cases are notified in which action on the part of the sanitary staff is needed; in many instances, the friends of the patient have themselves carried out disinfection under the guidance of their medical adviser.

Great advantage has attended the admission of patients to the Fazakerley Hospital (see page 221).

The age period at which the greatest number of cases were notified is from 25 years upwards, 318 males and 297 females being notified; 70 males and 103 females were notified between the ages of 15 and 25 years.

Total number of Males notified.....	564
Total number of Females notified	593

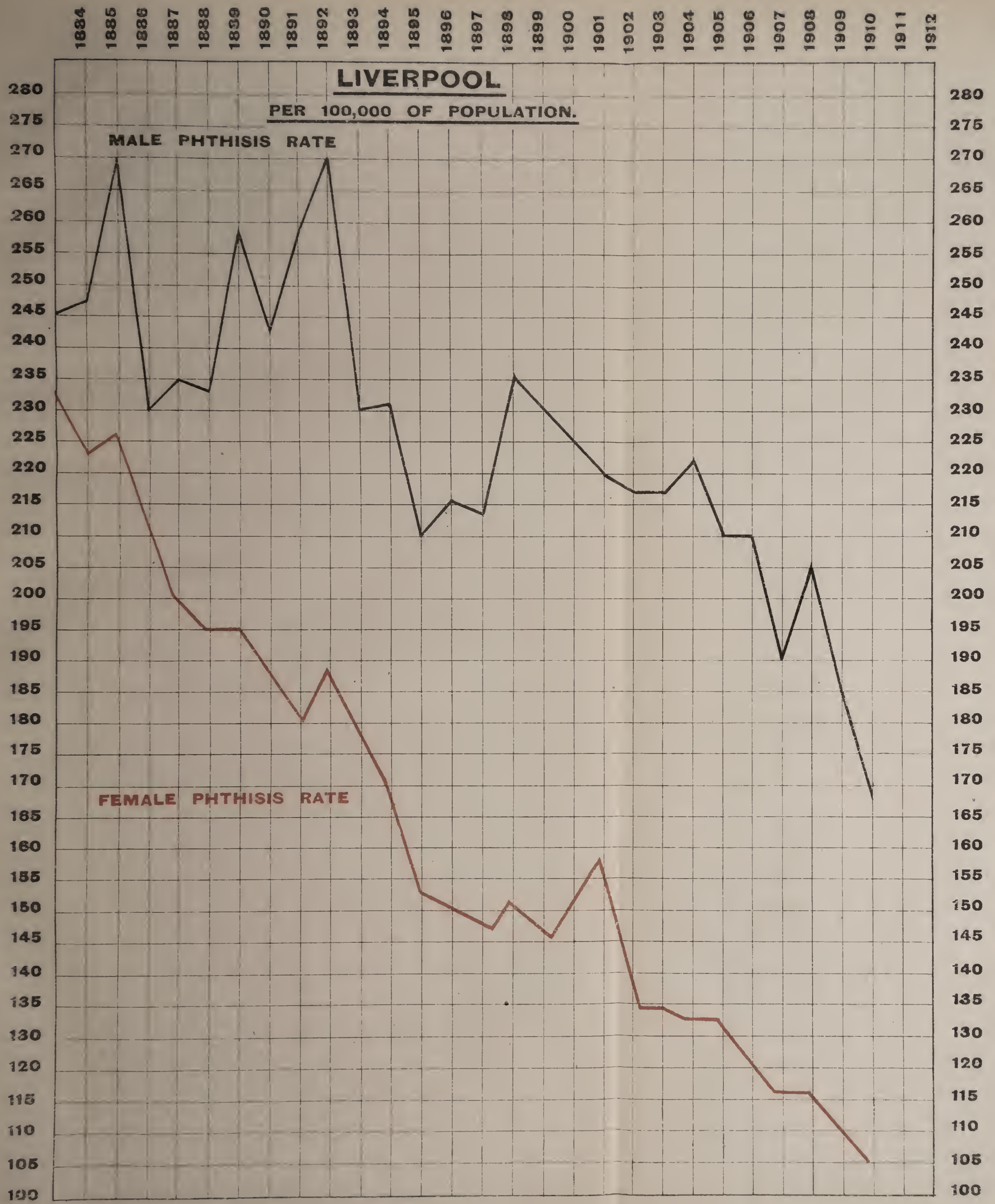
There were 106 cases of Tuberculosis other than of the lungs reported.

The occupations showing the largest number of cases were as follows:—

Labourers.....	95	Cases.
Firemen (Marine)	7	,,
Seamen	14	,,
Charwomen	22	,,
Domestic Servants	26	,,
Hawkers.....	25	,,
Painters and Plumbers	10	,,
Bookkeepers.....	18	,,
Joiners	10	,,
Ship Stewards.....	13	,,

LIVERPOOL

PER 100,000 OF POPULATION.



O.9014.1500.6/11(22914)698 Z.



PHTHISIS RATES ENGLAND AND WALES

PER 1,000,000 OF POPULATION.



O.8954.1500.6 11(22840)699 S.



PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1908.

These regulations came into effect on the 1st *January*, 1909.

During the year 1910 the cases notified under the Regulations numbered ...	3,987	
Of this number	2,420	were duplicates.
Leaving a total of.....	1,567	Cases,
Rooms, Bedding, &c., disinfected in	1,360	instances.
Bedding, &c., removed for special disinfection in	79	,,

The age period at which the greatest number of cases were notified is from 25 years upwards, 768 males and 331 females being notified; 204 males and 85 females were notified between the ages of 15 and 25 years.

Total number of Males notified	1,067
Total number of Females notified	500

The occupations showing the largest number of cases were as follows—

Labourers	195	Cases
Firemen (Marine)	14	,,
Hawkers	23	,,
Seamen	10	,,
Carters	26	,,
Charwomen	32	,,
Domestic Servants	28	,,
Painters and Plumbers	10	,,
Joiners	12	,,

INFORMATION ON CONSUMPTION.

A card containing information for consumptive people and those who live with them has been widely circulated during the past ten years.

A copy of this information has appeared in previous reports.

The accompanying diagrams illustrate the changes which have been taking place with regard to phthisis during the last twenty to thirty years:—

(*a*) In the City of Liverpool;

(*b*) In England and Wales.

It will be seen that the decline has been marked in both sexes, but much more so in the female than in the male.

ALCOHOLISM.

The continued diminution in the number of deaths from excessive drinking is a gratifying feature during 1910. It is in part at least due to the diminution of the facilities for obtaining drink in the poorer parts of the city.

The total number of deaths certified by Coroner's Juries to be the result of excessive drinking is 91, the same number as in the previous year.

Forty-six of these deaths occurred in the first six months of the year and 45 in the second six months. Fifty-eight were males and 33 females.

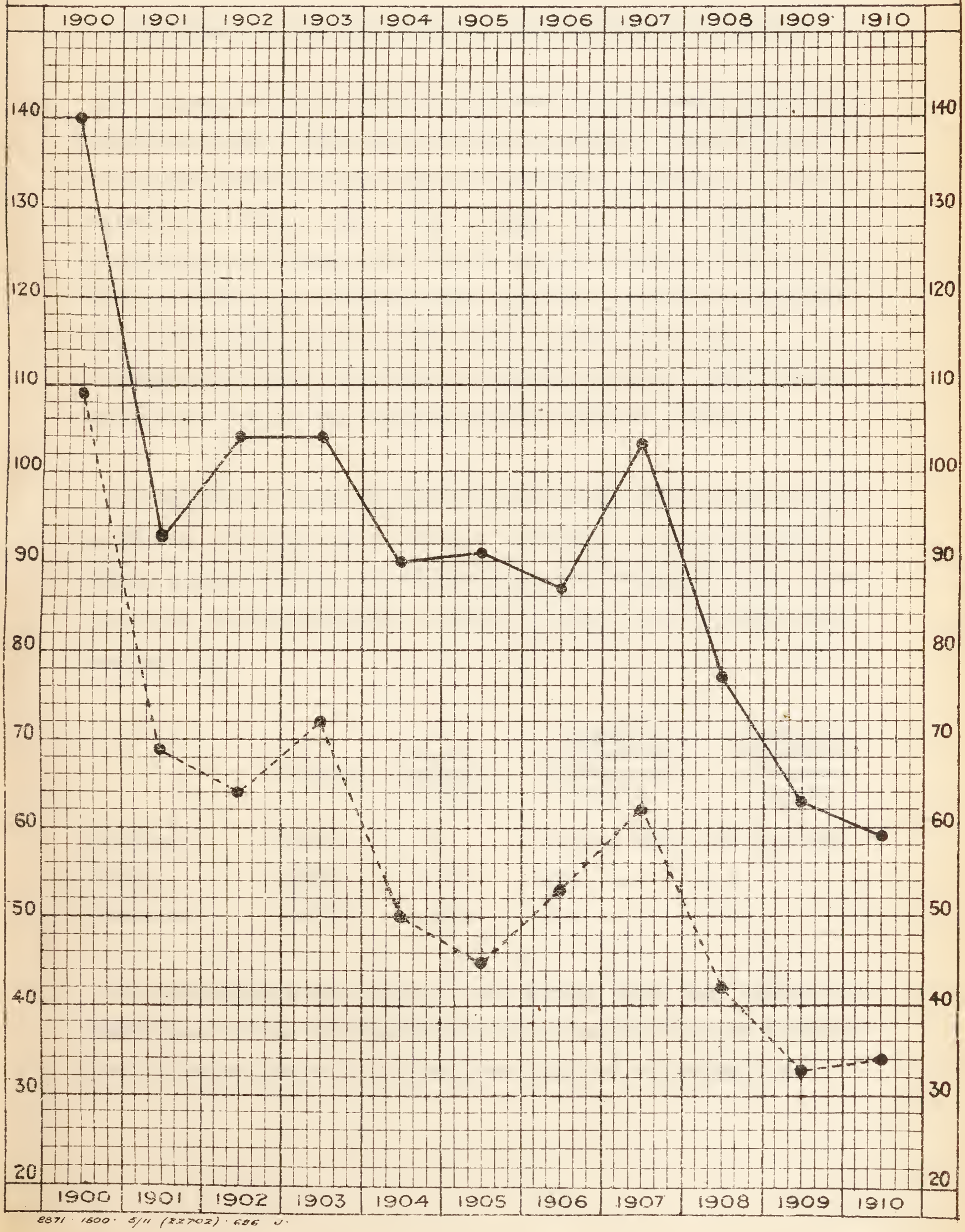
Satisfactory as this decline is, the figures still indicate a direct sacrifice of life to drink which is deplorable.

In addition to the foregoing, six men and two women were fatally injured whilst under the influence of drink; three men, aged respectively 32, 40 and 43 years, hanged themselves whilst in a state of temporary insanity due to excessive drinking; one woman, aged 56, poisoned herself whilst in a state of temporary insanity brought on by excessive drinking; one man, aged 50, cut his throat whilst suffering from the effects of excessive drinking, and one woman, aged 36, drowned herself whilst under the influence of drink. In two inquests in which death was found to be the result of violence, the person committing

CITY OF LIVERPOOL.

DEATHS FROM EXCESSIVE DRINKING DURING THE 11 YEARS 1900 TO 1910.

The Black Line denotes Males and the Dotted Lines Females.



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the deed was under the influence of drink, and in two cases both the persons who inflicted the injuries, and the injured person were under the influence of drink at the time.

"Alcoholism" is certified to be the cause of death of two women.

It has been erroneously claimed that alcohol is a necessary part of the food of the people. Those who put forward a claim of this kind have not perhaps considered that the long series of fatalities attending its use is a characteristic from which foods happily are free; indeed, it is inconceivable that means would not be found to restrict the sale of any article of food or of any drug which destroys an average of (extending over a great number of years) three lives a week in this City.

It has many times been pointed out that the number of deaths does not indicate the extent of the mischief caused by excessive drinking.

A comparison of three Districts in regard to the general death-rate, the proportion of deaths due to excessive drinking, and the proportion of deaths which take place in Workhouses and Hospitals, shows what proportion of the population in times of sickness are dependent upon charitable aid.

	Population.	General Death-rate per 1,000.	Proportion of Deaths in Workhouses and Hospitals.	Proportion of Deaths due to Excessive Drinking.
Exchange	37,773	29	55·1 per cent.	1·5 per cent.
Walton	73,890	12·1	25·8 ,,	·3 ,,
Wavertree	38,721	12·2	24·1 ,,	·6 ,,

The circumstance that many of the broken down and unfortunate classes from various localities drift into the lodging-houses in Exchange District, and so pass on into Workhouses, will not be lost sight of.

THE BURNING OF CHILDREN.

The loss of life amongst children from burning and scalding in this City is so serious that no investigation into its causes can be too close. During the last three years the following deaths of children under ten years of age have taken place from burning:—

	1908.		1909.		1910.		Total.
	M.	F.	M.	F.	M.	F.	
Burns ...	23	45	18	50	25	45	206
Scalds ...	16	9	18	15	16	12	86
	39	54	36	65	41	57	292

Apart from these, numbers of children have been admitted into the Hospitals with burns or scalds of a more or less serious character. In a very large proportion of the whole of these cases the cause of the death or of the injury is found to be owing to the children being left alone in a room with an unguarded fire, but it does not appear that any person has been held blameworthy for these occurrences up to the present time.

On the 1st April, 1909, there came into operation the Children Act, 1908, the object of which is to lessen the injury, ill-treatment and unnecessary suffering which children are made to undergo by neglect and exposure. Two sections in this Act bear directly upon the subject now under consideration.

Section 15 constitutes it specifically an offence for any person who has the care of any child under the age of seven, and who allows that child to be in any room with an insufficiently protected fire, by reason of which the child is killed or suffers serious injury. This clause deals with the

offence which has been committed, and cannot be put into operation until the child is dead, or seriously injured. Under this section of the Act, some ineffective prosecutions have been undertaken; ineffective probably because there can obviously be no suggestion that the child had been wilfully and deliberately done to death. The matter, in fact, is regarded as an unavoidable incident.

Section 12, however, of the Children Act of 1908, puts a different complexion upon the subject. This section, clause 1 (omitting extraneous words) may be quoted as follows—"If any person over the age of 16 years who has the care of any child wilfully assaults, ill-treats, neglects, abandons, or exposes such child in a manner likely to cause such child unnecessary suffering or injury, that person shall be liable on conviction to a fine, or in default to imprisonment with or without hard labour."

It cannot be urged that the exposure to an open fire is not likely to cause a child unnecessary suffering or injury. The facts and circumstances of these fatal cases, close upon 300 in number, forbid any such contention.

In one of the cases which the Infant Life Preservation Committee had before it, the mother had been previously warned on account of this form of neglect, that she must protect her fire, and that she must not leave her young children exposed to an open fire. Not only that, but she had had a fireguard given her by the Health Committee, in order that the children should not be so exposed. Her offence consisted in intentionally removing that fireguard, and using it for an entirely different purpose, viz., as a receptacle for clothing. Her children, aged 4 years and 6 years, were left alone in a room with a large unprotected fire, whilst she herself was visiting neighbours. Exposure of this kind does not appear to be covered by the Act, which consequently needs amendment.

CANCER.

The following table indicates the number of deaths from Cancer during the last five years, and the part of the body affected :—

DISEASE.	1906.			1907.			1908.			1909.			1910.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Cancer of Stomach and Bowels..	114	121	235	111	116	227	150	132	282	135	149	284	169	132	301
,, Liver	34	48	82	28	50	78	23	37	60	33	55	88	46	48	94
,, Urinary and Generative Organs	22	100	122	19	125	144	21	111	132	4	121	125	29	112	141
,, Breast	...	66	66	...	68	68	1	51	52	...	53	53	...	60	60
,, Head and Face	24	13	37	30	6	36	29	9	38	24	8	32	22	3	25
,, Tongue, Neck, and Throat.....	62	20	82	75	18	93	51	6	57	61	6	67	55	10	65
,, Other parts of the Body	20	14	34	10	9	19	14	7	21	21	6	27	11	19	30
,, Parts not specified ...	6	14	20	7	12	19	9	7	16	9	9	18	10	19	29
Total	282	396	678	280	404	684	298	360	658	287	407	694	342	403	745

FEVER AND DIARRHŒA MORTALITY.

The following table shows the death-rate per 1,000 of the population, and the number of deaths from Fever and Diarrhœa during the last twenty-eight years :—

Year.	*Death Rate per 1,000 of Population from all causes.	Deaths from Diarrhœa.	Deaths from Fever.		
			Typhus.	Typhoid.	Continued.
1883	27·7	541	408	108	24
1884	26·6	841	77	112	16
1885	25·6	422	71	95	16
1886	26·1	781	47	140	11
1887	26·4	619	52	130	12
1888	23·1	431	32	125	4
1889	24·9	575	45	167	...
1890	27·5	468	23	99	1
1891	26·8	330	37	92	2
1892	24·4	415	18	111	2
1893	26·7	866	44	221	5
1894	23·1	503	50	248	7
†1895	24·8	1,108	24	197	4
1896	21·4	851	36	166	2
1897	22·8	1,482	23	145	5
1898	22·2	956	19	148	5
1899	24·1	1,158	13	182	4
1900	23·1	900	11	120	4
1901	21·6	1,269	14	154	3
‡1902	21·7	611	25	190	2
1903	20·0	657	57	108	...
1904	22·1	1,785	25	82	1
§1905	19·5	960	28	49	1
1906	20·6	1,298	8	85	1
1907	18·7	544	18	92	...
1908	18·9	630	10	73	2
1909	18·8	514	8	54	...
1910	17·9	540	...	42	...

* Calculated on corrected population as per Census Returns of 1891, 1901 and 1911.
† City Boundaries extended. ‡ Garston included. § Fazakerley included.

Mr. Plummer, M.A., F.R.A.S., Astronomer to the Mersey Docks and Harbour Board, has kindly furnished the following tables relating to Meteorological observations made by him at the Liverpool Observatory, Bidston:—

LIVERPOOL OBSERVATORY, BIDSTON, BIRKENHEAD.

Latitude 53° 24′ 5″ N. Longitude 3° 4′ 20″ W.

Height above the Mean Level of the Sea 202 feet.

1910.	Barometer. Mean.	Temperature. Mean.	Rainfall.		Mean Monthly Humidity (Complete Saturation equal 100).
			Amount.	No. of days on which ·01 in. or more fell.	
	Inches.	Degrees.	Inches.		
January	29·769	39·1	2·168	19	85
February	29·513	41·8	2·369	27	83
March	30·124	43·6	0·640	12	80
April	29·803	45·6	2·339	21	77
May	29·894	52·0	2·070	18	77
June	29·879	58·3	2·601	19	73
July.....	29·852	58·5	3·027	12	74
August	29·819	59·3	3·492	23	79
September	30·244	55·7	0·460	10	76
October	30·029	51·8	2·538	12	81
November	29·606	40·0	4·194	26	86
December	29·624	44·4	2·687	28	86

Difference from the Average Quantities observed during the last 40 years.

1910.	Barometer.		Temperature.		Rainfall.	
	Above Average.	Below Average.	Above Average.	Below Average.	Above Average.	Below Average.
	Inches.	Inches.	Degrees.	Degrees.	Inches.	Inches.
January	...	0·166	...	0·1	...	0·026
February	...	0·419	0·5	...	0·648	...
March	0·232	...	1·4	...	...	1·118
April	...	0·095	...	1·7	0·728	...
May	...	0·071	0·2	...	0·155	...
June	...	0·113	0·9	...	0·571	...
July	...	0·095	...	2·3	0·341	...
August	...	0·095	...	1·2	0·504	...
September	0·295	...	...	0·5	...	2·446
October.....	0·157	...	2·2	...	...	1·050
November	...	0·292	...	3·2	1·565	...
December.....	...	0·250	4·5	...	0·113	...

Observations of Velocity of Wind.

19 0.	Average Hourly Velocity for Month.	Maximum Hourly Velocity.	Date.	Minimum Hourly Velocity.	Date.
	Miles.	Miles.		Miles.	
January	19·3	55	Jan. 18	0	January 26.
February....	21·1	60	Feb. 17	0	February 27.
March.....	14·6	53	March 17	1	March 24, 28, 30.
April	17·8	41	April 25	1	April 1, 3, 11, 15, 17, 20, [21.
May	16·9	45	May 5, 6	1	May 15, 24, 26.
June	13·3	43	June 28	0	June 3, 23.
July	16·0	53	July 26	0	July 12.
August	15·6	53	Aug. 27	1	August 4, 9, 10.
September..	11·4	34	Sept. 26	0	September 5, 7.
October.....	16·1	69	Oct. 31	1	October 6, 21, 31.
November...	18·0	55	Nov. 2	1	November 3, 5, 10, 14, 19, [29.
December...	21·2	49	Dec. 24	2	December 4, 19.

CENSUS.

The results of the Census taken on the 2nd April, 1911, show that during the 10 years, there has been an increase in the population of the City of Liverpool of 42,432.

The accompanying table indicates the extent to which changes in the numbers of the people have taken place, and it also shows the changes which had occurred during the previous intercensal period:—

District.	1891 Census.	1901 Census.	1911 Census.	Increase since 1901.	Decrease since 1901.
Scotland	53,713	52,966	46,585	—	6,381
Exchange	47,738	41,999	37,385	—	4,614
Abercromby	55,530	52,440	44,717	—	7,723
Everton	110,556	121,469	120,895	—	574
Kirkdale	66,131	69,386	67,468	—	1,918
West Derby—West	76,971	86,694	85,516	—	1,178
Toxteth	107,341	106,043	101,651	—	4,392
*Walton	40,892	54,615	75,602	20,987	—
*West Derby—East	35,866	43,856	63,217	19,361	—
*Wavertree	13,764	25,303	40,013	14,710	—
*Toxteth—East (Late Toxteth Rural)	21,046	30,187	34,499	4,312	—
†Garston	13,444	17,289	23,863	6,574	—
‡Fazakerley	1,251	1,887	5,155	3,268	—
Total	644,243	704,134	746,566	69,212	26,780

Total increase since 1901 ... ... 42,432.

* Added to the City in 1895.

† ,, ,, 1902.

‡ ,, ,, 1905.

SANITARY ADMINISTRATION.

SANITARY ADMINISTRATION.

For the purpose of carrying out the requirements of the various Sanitary Acts of Parliament and the Orders, Bye-laws, and Regulations made thereunder, the following staff of the Medical Officer of Health's Department has been employed during the year:—

*Chief Sanitary Inspector	1
*Deputy Chief Sanitary Inspector	1
*Prosecuting Sanitary Inspectors	7
*Inspectors for General Sanitary Purposes	31
* ,, of Ashpits and Ashbins	2
*Female Inspectors for General Sanitary Purposes ...	21
*‖ ,, ,, of Midwives	1
,, ,, for Ophthalmia Neonatorum ...	1
* ,, Superintendent of Humanised Milk Depôts	1
,, Assistants at Humanised Milk Depôts ...	26
§Inspectors of Meat and Animals	5
¶ ,, under the Diseases of Animals Act ...	7
** ,, of Fish and Fruit	4
* ,, under the Sale of Food and Drugs Act ...	3
* ,, ,, Workshop and Shop Hours Acts	3
† ,, , Smoke	3
**** ,, , Removing Patients and Infected Bedding and Disinfecting Infected Houses, &c.	11
*‡Superintendents of Ambulance Staff	1
* ,, Disinfecting Apparatus	2
* ,, Disinfecting and Wall Paper Stripping Staff	1
Men engaged on Wall Paper Stripping Staff ...	25
*Chief Inspector of Common Lodging and Sub-let Houses	1
***Inspectors of Common Lodging and Sub-let Houses...	15
*Inspector of Canal Boats	1
* ,, Bakehouses	1
*Inspectors of Cowsheds and Milkshops	2
***Notice Servers	3
Clerical Staff	25

In every case Officers are selected for these positions, whose previous training and occupation have been such as to fit them for the special duties they are called upon to discharge. Those marked * are required to hold the certificate of the Sanitary Institute of Great Britain or a Certificate equivalent thereto. || Registered midwife, a fully qualified nurse, and holds diploma of London Obstetrical Society. § Butchers by trade; candidates are submitted to practical examination upon the lines which have been indicated in the Report of the Royal Commission upon Tuberculosis. ¶ Six are also Port Sanitary Inspectors. ** Fishmongers by trade. † Hold Marine Engineers' First Class Certificates. ‡ Holds Certificate of St. John Ambulance Association. *** Several hold the Certificate of the Sanitary Institute, or an equivalent thereto.

The number of occasions upon which the advice and assistance of the Health Department have been sought has increased during the year. These applications fluctuate slightly year by year; in 1905 they were 8,365; in 1906, 8,703; in 1907, 8,279; in 1908, 8,575; in 1909, 8,779; and in 1910, 9,354. As in former years, complaint in many cases was made to the Health Department only after repeated requests addressed to the persons causing or allowing the nuisance, or to agents or owners of property, had been ignored. Generally speaking, these complaints arise in connection with jerry-built property. A great deal of the time of the inspectors was taken up by these special examinations.

Requests to examine important public buildings and offices, as well as highly-rented dwelling-houses, are numerous, and the application of the smoke test has in many cases brought to light defects in the drainage system. Requests for the application of the smoke test are frequent, and involve considerable time in carrying out.

The following table shows the number of nuisances found by the District Sanitary Inspectors on routine inspection or on complaints, and the character of the proceedings taken by the Prosecuting Sanitary Inspectors to abate the nuisances, and the results:—

		1909.	1910
Number of Complaints made by Inhabitants		8,779	9,354
,, Nuisances discovered on above complaints...		11,726	11,993
,, ,, ,, ,, house to house inspection ...		74,567	80,868
Total Nuisances ...		86,293	92,861
,, Notices issued	Owners	41,418	41,997
	Occupiers	1,124	1,214
Total Notices ...		42,542	43,211
,, Notes to Complainants		1,973	1,844
,, Re-inspections of Nuisances		65,804	66,023
,, Nuisances abated on re-inspection		41,707	39,940
,, Visits to Premises under observation ...		1,332	1,581
,, Incidental calls		29,254	26,712
,, special nuisances referred to Prosecuting Inspectors...		9,872	10,080
,, ordinary do. do. ...		25,709	26,155
Total		35,581	36 235
,, visits made by Prosecuting Inspectors, *re* special reports		13,255	13,463
,, visits made by Prosecuting Inspectors, *re* ordinary reports		40,692	41,138
Total		53,947	54,601
,, re-inspections of nuisances		88,492	89,146
,, nuisances abated on re-inspection		35,226	34,974
,, notes sent to comply with notices		6,695	7,237
,, re-tests of drains after compliance with notices		204	212
,, Informations laid for nuisances		359	237
,, Magistrates' Orders		216	133
,, Fined		22	13
,, Acquitted or Withdrawn		121	91
Amount of Fines and Costs . .		£52 6 6	£63 16 0

The nuisances dealt with comprise mainly—defective and choked drains, sink waste pipes and spouts; defective roofs; defective flagging and paving; defective water-closet basins, putty joints, walls, floors, seats and doors; defective or dirty cisterns; defective supply pipes; insufficient or no supply of water; defective chimney flues; offensive matter, animals or poultry on premises; also dirty floors, &c.

WATER CLOSET CONVERSIONS AND NOTICES TO PROVIDE ADEQUATE ACCOMMODATION.

As in previous years the Health Committee have taken action with a view to cause proper water-closet accommodation to be provided for insanitary houses situated in courts.

The result of this has been that in many instances the owners have approached the Housing Committee, and a mutual scheme resulted in great improvement to the houses in question. In the majority of instances, however, it is obvious that the only remedy is demolition, and the action of the Housing Committee is tending to effect this end.

Fifty-two houses have been dealt with as regards water-closet accommodation.

IMPROVED SANITARY ASHBINS SUBSTITUTED FOR ASHPITS,

This important work has been steadily continued, and as a result, when compared with last year, there has been an increase of nearly 700 bins supplied to replace the old type of insanitary ashpit.

	1909.	1910.
No. of defective Ashpits reported	1,896	3,611
,, Notices	2,938	4,091
,, Improved Sanitary Ashbins supplied	9,588	10,284
,, Ashpits abolished	4,583	5,131

The number of improved sanitary ash-bins supplied in place of old insanitary ashpits is 10,284. In addition, approximately, 806 improved bins have been placed in new property, making a total of 11,090 bins.

There are now 91,910 sanitary ashbins in use in the city; there are still approximately 30,000 ashpits in the City.

REFERENCES FROM OTHER DEPARTMENTS.

	1909.	1910.
Received from the Education Department ...	23,795	27,629
,, City Engineer	9,231	9,028
,, Water Engineer	2,464	2,257
,, Lodging-house Inspectors..	8,281	7,604

The references from the Education Department relate to school children said to be suffering from measles, whooping cough, ringworm, skin disease, neglect, &c.

The references from the other Departments mainly comprise insanitary conditions discovered by officers belonging to those departments, but with which it is not within their province to deal. The City Engineer's Department continues to report defects in private drains brought to light during the process of systematic flushing.

REFERENCES TO OTHER DEPARTMENTS.

A considerable number of conditions ascertained by the Male Sanitary Staff which did not come within the scope of the Health Department were referred to other departments to be dealt with:—

	1909.	1910.
Referred to City Engineer	10,132	12,603
,, Building Surveyor...	2,415	2,978
,, Water Engineer	7,995	7,656
,, Education Department	24,303	26,474 *

The references to the Water Engineer comprise mainly, defective fittings, resulting in waste of water; also cases in which the supply was insufficient, owing to various causes.

References to the Education Department chiefly relate to children from infected houses who are attending school.

* For number of references by Female Inspectors see page 104.

HOUSE TO HOUSE VISITATION.

The following table indicates the results of the systematic house-to-house visitation by the District Male Staff:—

	1909.	1910.
Number of Inspections of Street Houses	59,727	72,153
,, Street Houses found Clean...	58,303	70,554
,, Apartments in Street Houses Examined ...	289,502	376,390
,, Inspections of Court Houses	4,686	3,836
,, Court Houses found Clean...	4,478	3,623
,, Apartments in Court Houses Examined ...	12,601	11,605
Total Number of Houses Examined	64,413	75,989

The gradual diminution in the number of Courts enables a more frequent inspection to be made.

DIRTY HOUSES.	1909.	1910
Number of Dirty Street Houses Inspected	1,424	1,599
,, ,, Court ,, ,, ...	208	213
,, ,, Cellars Inspected	232	253
,, ,, Houses and Cellars Re-Inspected ...	1,336	1,271
,, ,, Houses and Cellars cleansed on Re-inspection	584	561
,, Notices to Owners to Cleanse Dirty Houses	1,747	1,874
,, Notices to Occupiers to Cleanse Dirty Houses	76	87
,, Notices to Owners to Whitewash Exteriors of Court Houses	731	931
,, Informations	11	5
,, Fined	4	4
,, Acquitted or Withdrawn	7	—
Amount of Fines and Costs ...	£2 5 6	£2 17 6

INFECTED HOUSES.

	1909.	1910.
Number of Infected Street Houses (notified cases) ...	10,858	10,791
,, ,, Court ,, (,, ,,) ...	427	411
,, ,, Cellars (,, ,,) ...	59	56
,, visits to infected Houses and Cellars (notified cases)	10,703	10,916
,, ,, ,, ,, ,, (school cases)	10,688	13,166
,, Smallpox and Typhus enquiries ...	4,086	3,162
,, Phthisis revisits	2,984	3,094

EXAMINATION OF CELLARS AND CELLAR DWELLINGS.

	1909.	1910.
Number of Inspections of Street Cellars	13,498	16,762
,, Street Cellars found disused	433	520
,, ,, ,, used for Lumber, &c. ...	8,421	10,662
,, ,, ,, used as Kitchens	3,154	4,153
,, ,, ,, found illegally occupied ...	131	89
,, ,, ,, ,, legally ,, ...	1,359	1,338
,, Notices issued to Owners	235	152
,, ,, ,, Occupiers	142	94
,, Inspections of Court Cellars	1,418	1,290
,, Court Cellars found disused	74	68
,, ,, ,, used for Lumber, &c. ...	938	929
,, ,, ,, used as kitchens	398	287
,, ,, ,, illegally occupied	8	6
,, Informations against Street Cellar Owners	—	—
,, ,, ,, Court ,, ,,	2	—
,, Fined	—	—
,, of Informations against Street Cellar Occupiers	1	—
,, ,, ,, Court ,, ,,	—	—
,, Fined	—	—

The number of cellars filled in by the Health Committee, free of charge to the owners during the year is 4, and the total filled in during the last ten years is 265.

The total number of cellars let as separate dwellings at present upon the Register is approximately 1,764.

About 5,292 people are at present housed in cellars.

Cellars occupied as separate dwellings must comply with certain requirements under the Liverpool Improvement Act of 1871, and the Public Health Act of 1875. The requirements of the Act specially relating to Liverpool have been summarised in the report for 1904.

Under the powers of the Liverpool Corporation Act of 1908, the occupation of cellars as separate dwellings, the floors of which are more than two feet below the ground, must cease after December 31st, 1912.

COURT AND ALLEY EXAMINATIONS.

	1909.	1910.
Number of Inspections of Courts and Alleys... ...	39,685	35,092
,, ,, Closets	80,622	69,220
,, Closets found Dirty, but cleansed by Officer's Instructions	36,214	32,877
,, Informations	2	—
,, Fined	2	—
Amounts of Fines and Costs	£0 7 0	£0 0 0

Special and systematic visits to courts and alleys are made with the object of ensuring the cleanliness of the domestic offices and the surface of the courts. The aim is to keep the courts and alleys uniformly clean throughout the week, and with this view the district inspectors are instructed that every tenant in each court is in turn to be held responsible for the cleanliness of the water-closets for a period of one week; the inspector records in his visiting book whose turn it is, and duly informs that tenant. Failing compliance with his requirements, an information is laid under a bye-law, made under the Liverpool Sanitary Act, 1846.

Under the Public Health Acts Amendment Act, 1890, somewhat similar proceedings may be taken.

The courts and alleys continue to decrease in number, owing to the demolition of low-class property for the extension of business premises, or to the removal of insanitary property by the Housing Committee. The number of courts and alleys scheduled for inspection in 1890 was 2,165, in 1895 it had fallen to 1,660, in 1900 it was 1,195, in 1905 it was 927, in 1906 it was 857, in 1907 it was 825, in 1908 it was 782, in 1909 it was 698, and in 1910 it was 604, showing a diminution in twenty years of 1,561 courts and alleys, of which 323 were demolished during the last five years.

In the months of July to September many of the water-closets were more frequently visited, and throughout the year all courts and alleys having covered entrances were specially washed and hosed down by the scavengers. Under the Liverpool Sanitary Act the exteriors of all courts and alleys require to be limewashed as often as may be necessary. The number of courts requiring limewashing in 1910 was 641, representing approximately 3,444 houses.

COMMON LODGING-HOUSES.

At the end of 1909 there were on the register a total (including emigration houses) of 383 lodging-houses, and at the end of 1910 the total number was 342, which furnished accommodation for 12,386 lodgers besides 813 members of the keepers' families.

During the year 98 houses were given up and removed from the register, and 57 new houses added, leaving the number on the register 342.

In some of the better-class houses for men, separate cubicles are provided for each lodger, the price paid for them varying from 6d. to 1s. 6d. per night. These cubicles are much more appreciated than the ordinary accommodation provided.

The number of what are known as "model" lodging-houses, for men only, upon the register is 149, and these are registered to accommodate 6,690 lodgers, as well as 268 members of the keepers' families.

The term "model" appears now to be used as a trade designation to indicate premises used for the accommodation of one sex only.

There are also 24 registered model lodging-houses for the accommodation of women only. These have rooms for 733 lodgers, in addition to 30 members of the keepers' families.

Common Lodging-Houses for Women have been fully dealt with in the Report for 1909.

The visits to lodging-houses are both by day and by night. The night visits are almost restricted to the lower districts and commoner class of house. The lodging and emigration houses of the better class, especially those provided only with single beds for each person, and with no more beds than are equivalent to the number of lodgers allowed, are only occasionally visited at night, unless special circumstances necessitate a closer supervision.

Persons harbouring lodgers in unlicensed premises receive a notice to apply to have the rooms measured and licensed. There were 7 such notices issued during the year.

The number of day visits paid during the year was 19,052, and the night visits 1,164. During the preceding year the day visits were 19,501, and the night visits 1,213.

Five informations were laid against keepers of common lodging-houses during the year for the following offences:—

	1909.	1910.
Not sweeping floors	3	3
Not washing floors	3	0
Overcrowding	1	1
Receiving lodgers in unlicensed rooms ...	1	1
Total	8	5

Convictions followed in 4 cases, the total amount of fines amounting to 10s., and ranging from 1s. 0d. and 1s. 0d. costs to 2s. and costs. During the preceding year there were 7 convictions, and the fines amounted to £1 3s. 0d.

One case was withdrawn.

The number of lodging-houses found dirty was 61; in each case notices were served to limewash and cleanse the premises. All the notices were complied with.

The Chinese lodging-houses, which have for many years been visited regularly by day and by night, are exceedingly well kept, clean and orderly, notwithstanding that most of the properties are very old. Overcrowding is extremely rare. The Chinese, as a rule, pay every regard to sanitary requirements, and the children of the married Chinese are always well clad and cared for, and very kindly treated.

The following is a list of "Common Lodging-houses" for women now on the register:—

No.	Street.	Keeper.	Deputy Keeper.
	Netherfield Road South, Ann Fowler Memorial Home.	Florence Booth	Matron and Assistants.
157	Islington	Marie Firth	Female Assistant.
46a	Everton Brow	Rev. Herbert Wood	Matron and Assistant.
44a	,, ...	,, ...	,, ,,
45	,, ...	Edward Boreland ...	Female Assistant.
79	Kempston Street	Margaret Ryan	Keeper's daughter.
89	,, ...	Richard Baines	Female Assistant.
94	,, ...	John Kelly	Keeper's Wife.
28	Wilton Street	Margaret Ryan	Female Assistant.
87	Soho Street	Rose Dacy	,, ,,
89	,, ...	,, ...	,, ,,
71	,, ...	Ellen Phillips	,, ,,
114	,, ...	Richard Baines	,, ,,
16	Queen Anne Street	Sarah Edwards	,, ,,
8	Prince Edwin Street	Ernest Wight	Keeper's Wife.
10	,, ,, ...	,, ...	,, ,,
121	Richmond Row	Thomas Lancaster ... and Wife.	,, ,,
123	,, ,, ...	,, ...	,, ,,
165	,, ,, ...	Maria Baines	Female Assistant.
36	Circus Street	Martin Carroll	Keeper's Niece.
31	Baptist Street	,, ...	,, ,,
22	Springfield	Catherine Todd	Female Assistant.
3	Trinity Place	,, ,, ...	,, ,,
13	Devon Street	Elizabeth Buckley ...	,, ,,

IMPROVEMENTS IN SANITARY ACCOMMODATION.

The following is a list of women's and other common lodging-houses where structural alterations have been carried out with the view of improving the kitchen and washing accommodation, as well as the sanitary arrangements:—

No. 89, Kempston Street.—Trough closets removed; two new water-closets erected, and bathroom containing bath and two new wash-basins, with hot and cold water service.

No. 79, Kempston Street.—New bathroom and washing accommodation consisting of bath and three new wash-basins, with hot and cold water service.

No. 94, Kempston Street.—New bathroom containing bath and two new wash-basins, with hot and cold water service.

No. 89, Soho Street.—Trough closet removed; new water-closet erected; new bathroom containing bath and two new wash-basins, with hot and cold water service.

No. 87, Soho Street.—New bathroom containing bath and two new wash-basins, with hot and cold water service.

No. 114, Soho Street.—New bathroom containing bath and two new wash-basins, with hot and cold water service.

No. 165, Richmond Row.—New bathroom containing bath and two new wash-basins, with hot and cold water service.

No. 36, Circus Street.—New bathroom containing bath and two new wash-basins, with hot and cold water service.

No. 55, Richmond Row.—Three new water-closets erected, and four wash-basins, with hot and cold water service.

No. 16, Queen Anne Street.—New bathroom containing bath and two new wash-basins, with hot and cold water service.

No. 64, Prince Edwin Street.—New bathroom and washing accommodation, consisting of bath and five new wash-basins, with hot and cold water service.

No. 406, Scotland Road.—Four new wash-basins fixed.

No. 11, St. Anne Street.—Two new water-closets erected, and two new wash-basins fixed.

No. 16, Springfield.—New bathroom and washing accommodation, consisting of bath and three new wash-basins, with hot and cold water service.

No. 23, Everton Brow.—New bathroom and washing accommodation, consisting of bath and five new wash-basins, with hot and cold water service.

No. 29, Everton Brow.—Five new wash-basins fixed.

No. 41, Everton Brow.—Four new wash-basins fixed.

SEAMEN'S LICENSED LODGING-HOUSES.

The Corporation have made Bye-laws, with the sanction of the President of the Board of Trade, for the licensing of Seamen's Lodging-houses, under the Merchant Shipping (Fishing Boats) Act, 1883, Section 48.

Applications from the keepers of Registered Common Lodging-houses for licenses authorising the designation of such Registered Common Lodging-houses as Seamen's Licensed Lodging-houses, are infrequent, only seven such licensed lodging-houses now being on the register; these provide accommodation for 149 seamen.

One license was granted during the year.

The number of licenses granted since the adoption of the Seamen's Licensed Lodging-house Bye-Laws is 33.

It has not been found necessary to institute proceedings under the bye-laws in question.

Some years ago the holders of licenses to keep Seamen's Lodging-houses were authorised by the Board of Trade to board vessels and seek for lodgers, and while this privilege was granted there was an advantage in holding such a license, but that privilege being now withdrawn, it

does not appear that there is any advantage to the keeper of a common lodging-house to have his premises registered as a Seamen's Lodging-house, and hence probably the small number upon the register.

SUB-LET HOUSES.

The supervision of sub-let houses and the prevention of over-crowding and other breaches of the bye-laws constitute an important branch of sanitary administration.

There is a slight decrease in the number of these houses now on the register, the number at the end of the year, 19,436, contrasting with 19,654 at the end of 1909, a decrease of 218.

The number added to the register during 1910 was 440; the number cancelled owing to their being no longer sub-let was 228. The number returned as demolished was 430, making a total on the register on the 31st December, 1910, of 19,436, as against 19,654 at the close of the preceding year.

DAY VISITS AND GENERAL CLEANLINESS.

The systematic visitation by day has been fully maintained, the number of day visits being 96,610, and the result has been a general improvement in the cleanliness of the rooms, stairs and passages of these houses.

The number of offences arising from neglect to cleanse floors, stairs, &c., was 289, as against 384 during the previous year, a decrease of 95 cases.

NIGHT VISITS AND OVER-CROWDING.

Cases of over-crowding were less numerous than in previous years, the number of convictions being 414, as against 576 in 1909 and 738 in 1908.

There has been a steady decline in the offence of overcrowding during the last five years. The percentage of convictions to the number of visits was 4·88 in the year 1906; during the year under review it was only 1·77. (See table, page 93).

The number of visits paid to sub-let houses during the day was 96,610, and during the night 23,273, with the result of finding 570 rooms overcrowded. In addition to overcrowding, 184 cases of indecent occupation came under the notice of the inspectors, as against 193 last year. The character of the indecent occupation may be judged of from the following facts:—In 77 instances one man and two women were found in the same bedroom; in 68 instances two men and one woman; in 16 instances two men and two women; in 15 instances one man and three women; in 5 instances three men and one woman; in 1 instance two men and three women; in 1 instance one man and four women; and in 1 instance six men and one woman. These cases appear to be the outcome of ignorance and indifference, and not of immoral intent. Under the bye-laws a number of persons have been fined for mixing sexes, and a number, who cannot be reached under the bye-law, cautioned by the inspectors

Informations were laid against 782 chief tenants and lodgers (room-keepers) for breach of the bye-laws, viz.:—

Overcrowding	454
Floors not washed	146
Floors not swept	24
Not cleansing stairs, &c.	119
Mixing sexes	39
Total	782

Five cases were withdrawn, forty-four cases acquitted, and in twenty-five cases the defendants had left the premises before the summonses could be served.

As the result of proceedings before the Stipendiary and other Magistrates, fines were inflicted as follows:—109 fined 6d. and 6d. costs; 478 fined 1s. and 1s. costs; 56 fined 1s. 6d. and 1s. 6d. costs; 28 fined 2s. and 2s. costs; 25 fined 2s. 6d. and 2s. 6d. costs; 10 fined 5s. and 4s. 6d. costs; 1 fined 7s. 6d. and 4s. 6d. costs; 1 fined 10s. and 4s. 6d. costs; making a total of fines levied during the year of £79 11s. 6d.

Offences against the bye-laws have been less than in the preceding year.

The total number of offences against the bye-laws for this year was 782, being 262 less than the number last year, which was 1,044, and 558 less than the year 1908.

The gradual diminution in overcrowding led the Health Committee in 1901 to amend the bye-laws relating to sub-let houses, and the City Council, with the sanction of the Local Government Board and on the recommendation of the Health Committee adopted amended bye-laws, which amongst other important provisions contained clauses providing that every lodger above 10 years of age shall have not less than 400 cubic feet of air space, and every person below 10 years of age shall have not less than 200 cubic feet, but if the room is used as a day-room as well as a bedroom, then every inmate must have at least 400 cubic feet. Under the previous bye-law a space of 350 feet only was required, and two persons under twelve were regarded as one adult.

The new bye-laws came into operation on the 30th January, 1901. One result of these bye-laws—which required so relatively large an addition to the cubic space allowed for each lodger—was to put an entirely new definition upon the offence of overcrowding, and although the great majority of people quickly appreciated the effect of the new bye-laws, yet there was necessarily a considerable increase in the number of persons proceeded against for overcrowding amongst those who neglected to comply with the altered provisions.

The following table shows the number of sub-let houses on the register, the number of night visits for the detection of overcrowding, the number of convictions for overcrowding, and the percentage of convictions to the number of visits for the past ten years, *i.e.*, since the application of the new bye-laws:—

Year.	No. of Sublet Houses.	No. of night visits for detection of overcrowding.	No. of convictions for overcrowding.	Per centage of convictions to number of visits.
1901	18,917	17,863	1,351	7·56
1902	19,976	17,274	1,150	6·65
1903	21,719	18,438	1,264	*6·85
1904	22,488	17,886	1,148	6·41
1905	20,518	19,193	1,326	6·90
1906	19,714	18,838	920	4·88
1907	19,832	22,982	962	4·18
1908	19,776	23,074	738	3·19
1909	19,654	23,534	576	2·44
1910	19 436	23,273	414	1·77

The practice by which the Inspectors of Sublet Houses visit the Corporation Dwellings still continues. The complaint in the first instance is usually received from the Manager of the Dwellings, and the usual proceedings follow.

The bye-laws as to houses let in lodgings, or occupied by members of more than one family, have been inserted in previous reports.

* This includes the added area of Garston.

The Building Surveyor has kindly supplied the following table:—

NUMBER OF HOUSES ERECTED AND TAKEN DOWN DURING THE YEAR ENDING DECEMBER, 1910.

DISTRICTS.	Number erected.	Number taken down
Scotland	—	221
Exchange	—	109
Abercromby	5	75
Everton	1	30
Kirkdale	—	8
West Derby (West)	3	31
Toxteth	39	90
Walton	723	3
West Derby (East)	335	2
Wavertree	354	8
Toxteth (East)	138	—
Garston	81	18
Fazakerley	31	—
Totals	1,710	595

The City Engineer has kindly supplied the following:—

Number of cellars filled in and bricked up during 1910	4
,, ,, ,, ,, the last 10 years ...	265

SEWER VENTILATION TO END OF 1910.

Number of 9-inch by 6-inch, 9-inch, 6-inch, 6-inch by 4-inch, 4-inch by 4-inch, 4-inch, and 3-inch Iron Pipe Ventilating Shafts	1,861
Number of Street Ventilating Manhole Covers and Gratings	6,603

CANAL BOATS.

The number of inspections of canal boats during the year was 6,034 and the conditions of the boats and their occupants, as regards matters dealt with in the Acts and Regulations, is indicated by the following information :—

Five boats, not registered by their present owners, were found to be used as dwellings. Written notices were sent to the owners in 2 cases, and 3 verbal notices were given. All the notices were complied with.

Eighteen boats were found without certificates on board. Notices were sent to the owners in 14 cases, and 4 verbal notices were given. All the notices were complied with.

Thirteen boats were found without the registered number painted on both sides of the boat. Notices were sent to the owners in 12 cases, and 1 verbal notice was given. The omission has been rectified in each instance.

On one boat a defective second bulkhead was reported. Notice was sent to the owner, and the defect remedied

In twenty-two boats the cabins required re-painting. Notices were sent to the owners in each case, and 20 were complied with. Two boats have not been seen in the district since.

Dirty cabins were reported in 18 cases. In 15 cases verbal notice was given to the Masters, and in others written notices were sent to the owners. In 15 cases the notices were complied with, and 3 not being complied with informations were laid against the masters and fines inflicted. The cabins were subsequently cleansed.

Besides the foregoing there were 64 instances of infringements of the Acts and Regulations, caused by leaky decks (20), general leaky condition of boats (15), broken lids to lockers (2), broken scuttle covers (4), defective ventilation (2), broken floors (5), no water casks on board (10), defective stoves (3), removal of bilge water (2), defective bed berths (1). Fifty-six notices were sent to the owners in respect of the above infringements. Fifty-one of the notices were complied with, and 5 have not been re-inspected.

Informations were laid in 6 cases, viz.:—dirty cabins (3), non-separation of sexes (3). In 5 cases fines were inflicted varying from 1s. and 1s. costs, to 5s. and 4s. 6d. costs, and in one case the information was dismissed with a caution, viz.: non-separation of sexes. The total amount of fines was £1 14s. 6d.

No case of infectious sickness occurred on the canal boats during the year.

The entire number of infringements of the Acts and Regulations referred to in the Report occurred on 114 boats, in several instances the offence being repeated on the same boat.

Ten notices were sent to the Education Committee relating to 13 children living on canal boats and not attending any school.

The number of boats on the register is 577. This number includes 12 boats that cannot be traced. It is probable that the boats which cannot be traced have been broken up or have left the district, but in the absence of definite evidence of this the boats remain on the register. Six boats have been removed from the register, as it was ascertained that one had been broken up, and 5 had left the district. During the year 15 new boats were registered, and 4 re-registered on account of change of owners, and 3 registered on account of change of owners and name of boat. All boats re-registered on account of change of owners, or the name of the boat being changed, or on account of structural alterations, retain their original numbers. Copies of the registration certificates were issued to the owners of six boats, owing to the original ones being worn out.

In 1898 the Canal Boat Inspectors were appointed as Port Sanitary Inspectors—an appointment which authorised them to inspect all classes of boats as a difficulty arose in regard to certain boats plying upon the canal which were not registered under the Canal Boat Acts, but which had been registered by the Board of Trade under the Merchant Shipping Act. Thirty-three visits were made to boats of this class, and all were found correct.

In 1903 the Port Sanitary Inspectors were appointed as Canal Boat Inspectors. This appointment authorised them to inspect canal boats which ply to and from the docks, and on the river. During last year these Inspectors made 908 visits which are included in the foregoing report. The number of contraventions for which notices were served on the owners was 42 on 38 boats.

SMOKE NUISANCES.

Proceedings for the abatement of Nuisances caused by the emission of excessive smoke from factory chimneys or from steamers, were taken under the Liverpool Sanitary Amendment Act, 1854, sections 24 and 25, the Liverpool Improvement Act, 1882, section 77, and the Liverpool Corporation Act, 1902, section 57, with the following results:—

	1909.	1910
Number of reports of excessive smoke from Manufactories ...	149	155
,, ,, ,, Steamers in river	252	246
,, ,, ,, ,, dock	28	36
Total	429	437

Admonished by the Health Committee or written to in respect to nuisances caused by the emission of excessive smoke:—

	1909.	1910.
Manufacturers	9	15
Steamship Owners	11	83
Total	20	98

	1909.		1910.	
Chief Inspector and Assistants gave M'facturers	381	Cautions	370	Cautions
,, ,, ,, Steamship Owners	70	,,	93	,,
Total... ...	451	,,	463	,,

Number of enquiries respecting Owners	430	401

	1909.	1910.
Informations against Manufactories	149	138
,, ,, Steamers in river...	198	183
,, ,, ,, dock...	21	5
Total	368	326
Acquitted or withdrawn, Manufactories	2	7
,, ,, Steamer cases	1	2
Total	3	9

	1909.	1910.
Fined, Manufactories	145	131
,, Steamers	218	186
Total	363	317

	1909.	1910.
Amount of Fines, Manufactories ...	£305 16 6	£300 18 6
,, ,, Steamers ...	395 10 9	365 15 8
Total ...	£701 7 3	£666 14 2

It is the duty of the Police to deal with nuisances arising from the firing of domestic chimneys.

SMOKE INSPECTION.

The falling off previously noted in the number of reports relating to excessive smoke still continues, and is an indication of the additional care exercised by manufacturers and steamship owners.

Out of 246 cases of excessive smoke from Steamers in the river which were observed, 48 vessels were bound for foreign ports, and two were towing another vessel in emergency, and consequently no proceedings were taken.

In 31 cases of excessive smoke from foreign trading steamers in dock, no proceedings were taken but the owners were written to.

	1909.	1910.
Complaints received of smoke from defective house flues, and from low chimneys	142	167
Visits relating thereto	880	930
Chimneys raised in consequence of complaints	26	35
Flues altered and repaired	18	28
Attention promised	92	99
Referred to other departments	5	1
Frivolous complaints	1	4
Total complaints dealt with... ...	142	167

The smoke in our atmosphere is very largely contributed to by the combustion of coal in domestic firegrates, steam boiler furnaces, and other furnaces used for manufacturing processes.

It is a common error to lay the blame of the pollution of the atmosphere by smoke entirely upon the factory chimney, and this is no doubt due to the fact that it is more easily noticeable than the individually small quantities of smoke which are emitted from the chimneys of dwelling-houses, and which reach a very large amount in the aggregate.

OFFENSIVE TRADES.

Applications for permission to carry on the following offensive trades were made during the year, and a report by the Medical Officer of Health on each application was submitted to the Health Committee:—

Premises.	Business.	Granted.	Refused.	Date, 1910.
2, Tapley Place	Bone Boiling.....	—	1	20th Jan.
Knacker's Yard, Carruthers Street...	Animal Slaughtering, and destruction of diseased meat	1	—	3rd Feb.
41, Villars Street	Gut Scraping	—	1	17th Mar.
8, Carruthers Street ...	,, ,, ...	1	—	31st Mar.
8, Carruthers Street (extension of)	,, ,, ...	1	—	9th June.
Henry Street and corner of Tanhouse Lane, Edge Lane...	Fat Melting and Bone Boiling	—	1	14th July.
Vacant land, North side of Stanley Park Avenue	Margarine and Soap Works..	1	—	8th Sept.
81 to 89, Naylor Street.	Manufacture of Lubricating Oil and Soft Soap and Tallow Melting	—	1	17th Nov.
	Total.....	4	4	

In cases in which permission is granted, conditions are imposed requiring that the premises be put in proper order to the satisfaction of the City Engineer, Building Surveyor and Medical Officer of Health, that no public or private nuisance be caused, and that the business be discontinued whenever the Council shall so require.

The number of inspections of premises where offensive trades are carried on was 1,628, as against 1,616 in 1909.

		1909.	1910.
Total No. of Visits to	Bone Boilers	170	159
,,	Fell Mongers	56	50
,,	Soap Boilers	222	226
,,	Fat and Tallow Melters	322	266
,,	Tripe Boilers	221	203
,,	Gut Scrapers	148	183
,,	Ham Cooking and Potted Meat Works	69	93
,,	Patent Manure Manufacturers ...	28	32
,,	Tanneries	110	122
,,	Knackers' Yards	130	155
,,	Paint and Resin Works	33	30
,,	Palm Oil Works	15	16
,,	Cotton Seed Oil Works	34	30
,,	Sulphuric Acid Works	20	6
,,	Butter Substitute Manufacturers ...	1	—
,,	Lard Refiners	37	37
,,	Rubber Works	—	20
	Total...	1,616	1,628

KNACKERS' YARD, CARRUTHERS STREET.

THE ANIMAL SLAUGHTERING CO.

The Health Committee have licensed the above Company and premises to destroy carcases of animals affected with contagious disease in accordance with the Orders of the Board of Agriculture and Fisheries.

Carcases of diseased horses and cattle are destroyed under the supervision of an Inspector of the Public Health Department at the Knackers' Yard, where specially tested iron pans with covered lids have been erected for the purpose. The carcases are placed in the tanks intact, sulphuric acid added, and steam applied until a temperature of 250° to 260° Fahr. is reached. An exhaust pipe conveys steam and all offensive odours to the furnace, thus preventing any nuisance arising.

Unsound meat is destroyed on these premises in a similar manner.

The carcases of horses which are destroyed on account of old age or minor complaints are also dealt with on these premises.

The following are the Returns for 1910:—

Horses Destroyed.	Horses taken in Dead.	Asses Destroyed.	Cows Destroyed.	Other Beasts.	TOTAL.
216	1,872	26	142	—	2,256

MARINE STORES.

	1909.	1910
Number of Visits by District Sanitary Inspectors ...	1,464	1,611

(For visits by Workshop Inspectors, see page 117).

COMMON HOUSE FLY.

In view of the obvious mischief occasioned by the Common House Fly, cards containing information have continued to be circulated throughout the city.

INSPECTION OF STABLES AND REMOVAL OF MANURE.

The usual attention has been given and the necessity for the frequent removal of manure emphasized.

The applications to the City Engineer's Department for the removal of manure have been more frequent, and the owners of stables have been informed of the facilities now offered by the Health Committee for its speedy removal.

The disinfection of middensteads has proceeded systematically, as in the previous year, and during the year 9,739 middensteads, after being emptied, have been disinfected by spraying with lime.

	1909.	1910.
Number of Visits to stables by District Sanitary Inspectors...	18,379	17,825
Number of midden-steads disinfected	8,190	9,739

RAILWAY CARRIAGES.

	1909.	1910
Number of Carriages Inspected	1,283	1,724
,, found dirty	7	—

Those found dirty were subsequently cleansed.

OFFICES.

	1909.	1910.
Number of Visits *re* Sanitary Conveniences	105	162

THE WORK OF FEMALE SANITARY STAFF.

The work of the Women Inspectors maintains its importance and variety. The babies visited are found for the most part to be in a satisfactory condition; numbers are found unwashed when visited, though not in the same dirty and uncared-for state as formerly. Long tube bottles are rarer, the mothers appear to have at last grasped the advantages of a tubeless bottle, and the infinite superiority of natural feeding even to that substitute. The advantages of training girls of school age in the care of infants and in other home duties cannot be too highly estimated, frequently they appear to be entirely deficient in these matters, indeed, boys of similar age make much kinder and more conscientious nurses than they do. Consideration for the little ones is not fostered by their home surroundings as a rule; it seems therefore all the more necessary that they should be taught outside, and at the same time they should be made to realise that these duties do not cease with the course of instruction, but must be part of their home life; only by this knowledge can any practical improvement be made in the homes of the future. A most difficult, almost an impossible, task is the education of the present mothers, many of whom are handing down the evil traditions which formed their own early experiences; to educate and elevate the mothers of the future is an end worth some trouble and expense to attain.

The Medical Inspection of school children increases in value, cases of great neglect and dirt being more rarely met with. The general standard of cleanliness is distinctly higher, though it will be readily understood that even yet many cases require constant supervision, and it is necessary for the Inspector to re-visit the schools from time to time to examine

these children. It is encouraging to note that the children themselves are impressed by the inspection, considering it a disgrace to be found in a dirty condition, and take much pride when complimented by the Inspector on their improved appearance. It has only been found necessary to take three very obstinate cases into Court, and in each a conviction was obtained. Usually the service of the preliminary notice has been quite sufficient to produce an improvement.

The question of protection of child life from the danger of fire is still a very pressing one. During the year 114 children were fatally injured either by scalding or fire. The accidents usually happened when the mother was out, more often gossiping than working, the children being left alone with an unprotected fire. The Health Committee instituted prosecutions in two cases; in one a fire guard had been provided, but was not in use when the accident occurred. The Magistrate was in sympathy with the action taken by the Health Committee, but with the law as it stands at present, he was unable to convict. An appeal against his decision was made, but the Lord Chief Justice sustained the Magistrate's view.

The following Charitable Societies have continued to render great help in assisting necessitous cases:—The Invalid Children's Aid Society, Liverpool Society for Prevention of Cruelty to Children, the Summer Camps, Blundellsands Cottage Home, Mrs. Birt's Sheltering Home, Myrtle Street, Church of England Society for Waifs and Strays, Dr. Barnardo's Homes, Samuel Smith Memorial Mission, Hostel of Hope, Bedford Street, Freshfield Home for Phthisical Cases, Jewish Board of Guardians, Training Home for Girls, Bedford Street.

Statistics relating to the work performed by the Female Sanitary Staff during the year will be found appended.

STATISTICS OF WORK DONE BY FEMALE SANITARY STAFF.

		1909.	1910.
Number of	Visits to School Cases	22,934	28,309
,,	Revisits ,, ,, ...	5,240	4,714
,,	Special School Enquiries	—	860
,,	,, to Schools	1,606	2,174
,,	Hours spent in schools	—	1924
,,	Children inspected in Schools	3,836	9,315
,,	References to Education Committee ...	10,246	11,672
,,	,, ,, District Sanitary Inspectors	752	455
,,	,, ,, Lodging-house Inspectors	59	57
,,	,, ,, Central Relief Society ...	2	11
,,	,, ,, City Engineer	77	31
,,	,, ,, Water Engineer	31	26
,,	,, ,, The Shelter, Islington ..	142	119
,,	,, ,, Relieving Officer	1	9
,,	Sterilised Milk Depôt Visits	117	—
,,	Visits to Lodging Houses	—	9
,,	Street Houses visited	4,319	1,925
,,	Court ,, ,, ...	882	231
,,	Cellars	1,093	222
,,	Families found dirty	448	300
,,	Re-visits to Families	1,327	438
,,	Houses found dirty	1,843	730
,,	Cellars ,, ,, ...	347	98
,,	Notices issued to cleanse dirty premises	3	—
,,	,, ,, floors and woodwork	55	30
,,	,, to Parents of verminous Children	635	577
,,	Verminous Children cleansed by Parents	359	201
,,	,, ,, ,, Staff ...	400	2,078
,,	Special Visits	5,635	4,902
,,	Police Aided Association Visits	88	123
,,	Visits *re* Diarrhœa Cases	97	145
,,	,, ,, ,, (fatal)	473	469
,,	Enquiries *re* Fire Guards	2	1
,,	Visits on behalf of Lord Mayor's "Unemployed" Fund	842	—
,,	Informations	—	6
,,	Fined	—	5
,,	Acquitted	—	1
	Amount of Fines and Costs ...	£1 9 6	

A considerable amount of information is summarised in the following table :—

STATISTICS RELATING TO VISITS PAID IN CONNECTION WITH NOTIFICATION OF BIRTHS ACT.

	1909.	1910.
Number of Births Notified	19,739	19,508
,, Visits relative to Births	17,623	19,243
,, Revisits ,, ,, ,, ...	3,043	2,108
,, children seen at addresses given	14,343	14,563
,, ,, dead	682	806
,, ,, could not be traced owing to removals	2,598	1,792
,, ,, illegitimate	282	366
,, ,, found to be clean	12,864	13,142
,, ,, ,, dirty	237	220
,, ,, ,, unwashed	1,242	1,201
,, mothers healthy	12,386	13,672
,, ,, delicate	1,957	780
,, ,, working	455	498
,, infants breast fed...	12,583	12,842
,, ,, partly breast fed	900	716
,, ,, artificially fed	860	1,005
,, ,, fed on Cow's milk	606	716
,, ,, ,, Tinned milk	306	420
,, ,, ,, other Foods	848	585
,, instances in which Boat-shaped bottle is used...	844	994
,, ,, ,, Long-tube ,, ...	317	242
,, families in which all children born are living...	5,548	5,358
,, ,, ,, half or over are living ...	5,907	6,178
,, ,, ,, under half are living... ...	695	658
,, ,, ,, child is first-born	2,193	2,258
,, families living in Court houses	793	752
,, ,, ,, Cellar dwellings	200	158
,, ,, ,, Corporation dwellings ...	262	367
,, families in which parents are Sober and careful	7,774	7,935
,, ,, ,, ,, Drunken ...	698	638
,, ,, ,, ,, Doubtful ...	5,871	5,879

INFECTIOUS DISEASE IN SCHOOLS.

The following tables show the age distribution and the monthly distribution of the school cases of infectious disease during the year:—

Table I.—SCHOOL CASES (Infectious Diseases).

AGE DISTRIBUTION—January–December, 1910.

DISEASE.	Under 5.	Under 6.	Under 7.	Total Under 7.	Under 8.	Under 9.	Under 10.	Under 11.	Under 12.	Under 13.	13 and over.	Total 7 years and upwards.	Grand Total.
Scarlet Fever	176	359	402	937	344	248	235	171	137	132	145	1412	2349
Diphtheria	36	80	83	199	67	46	43	34	33	22	29	274	473
Measles	663	1552	810	3025	316	155	79	51	28	18	26	673	3698
Whooping Cough	485	1279	771	2535	273	96	36	26	17	9	9	466	3001
Chicken-pox	270	734	568	1572	338	161	76	69	33	34	22	733	2305
Mumps	144	478	400	1022	263	167	91	111	64	68	64	828	1850
Totals	1774	4482	3034	9290	1601	873	560	462	312	283	295	4386	13676
Per cent. of those on Roll	22·3	28·9	19·2	23·7	10·7	5·7	4·01	3·2	2·3	2·2	2·4	4·5	10·1

Table II.—SCHOOL CASES (Infectious Diseases).

MONTHLY DISTRIBUTION—January-December, 1910.

DISEASE.	January.	February.	March.	April.	May.	June.	*July.	August.	September.	October.	November.	December.	Total.
Scarlet Fever	177	145	199	137	156	141	140	269	276	256	255	198	2349
Diphtheria	46	35	34	30	23	43	33	33	54	55	41	46	473
Measles	227	329	469	619	696	562	39	53	112	187	187	218	3698
Whooping Cough	597	373	471	493	361	340	15	115	39	47	71	79	3001
Chicken-pox	242	159	267	248	266	324	25	46	121	185	217	205	2305
Mumps	93	68	79	74	154	244	8	46	161	155	345	423	1850
Totals	1382	1109	1519	1601	1656	1654	260	562	763	885	1116	1169	1676

* Holidays—July 1st–August 8th.

The following is a list of schools closed during the year owing to the prevalence of Measles and other infectious disease amongst the scholars :

Date of Notice.	School.	Department or Departments.	Nature of Disease.	Period of Closure.
1910.				
Feb. 3	Knotty Ash C.E.	Infant	Measles, &c.	Until 21st Feb.
,, 18	Heygreen Road Council ...	,,	Measles	Until 7th Mar.
Mar. 2	Arnot Street Council	,,	Measles, &c.	Until after Easter Holidays.
,, 5	Banks Road Council	,,	,,	,,
,, 5	St. Cleopas', Beresford Road.	,,	,,	,,
,, 16	Victoria, Garston.....	,,	,,	,,
,, 17	Earle Road Council	,,	,,	,,
,, 18	Parkhill Higher Grade	,,	Measles and Chickenpox	,,
April 2	South Church of England ...	Infant	Measles and Whooping Cough	Until 30th April
,, 2	St. Peter's, Gilbert Street ...	,,	,,	,,
,, 2	St. Malachy's, Robertson St.	,,	,,	,,
,, 2	St. Patrick's, So. Chester St.	,,	,,	,,
,, 2	St. Vincent's, Norfolk St.	,,	,,	,,
,, 2	St. John's, Wellington Rd.	,,	,,	,,
,, 2	Parkhill Higher Grade	,,	,,	,,
,, 2	St. Silas', St. Silas Street ...	,,	,,	,,
,, 2	St. Cleopas', Beresford Rd.	,,	,,	,,
,, 2	Council, Dingle Lane	,,	,,	,,
,, 2	Our Lady's, Chipping Street	,,	,,	,,
,, 2	Beaufort Street Council	,,	,,	,,
,, 2	Harrington Council.....	,,	,,	,,
,, 2	Holy Trinity, Ashwell St. ...	,,	,,	,,
,, 2	Upper Park Council	,,	,,	,,
,, 2	St. James's C.E., Toxteth ...	,,	,,	,,

Date of Notice.	School.	Department or Departments.	Nature of Disease.	Period of Closure.
1910.				
April 2	St. Bride's C.E., Grey St. ...	Infant	Measles and Whooping Cough.	Until 30th April.
,, 2	Wesleyan School, Windsor Street	,,	,,	,,
,, 2	St. Paul's, Byles Street	,,	,,	,,
,, 6	St. Simon's, Bronte Street	,,	Measles, &c.	Until 25th April
,, 8	Earle Road Council	,,	,,	Two weeks
,, 8	Sefton Park Council	,,	,,	Three weeks.
,, 8	Morrison Council	,,	,,	,,
,, 8	Westminster Road Council	,,	,,	,,
,, 8	Lawrence Road Council ...	,,	,,	,,
,, 8	St. Bridget's, Bagot Street	,,	,,	,,
April 8	Our Lady's, Chesnut Grove	,,	Measles, &c.	Three Weeks
,, 8	Brunswick Wesleyan, Erskine Street	,,	,,	,,
,, 15	St. Alban's, Boundary St. ...	,,	Whooping Cough	Two weeks
,, 29	Dovedale Road Council	,,	Measles, &c.	Three weeks
May 5	William Henry St. Council...	,,	,,	,,
,, 5	St. Luke's, Colquitt Street	,,	Measles and Whooping Cough	Until 23rd May
,, 10	Fonthill Road Council	,,	Measles, &c.	Three weeks
,, 10	Wesleyan, Whitefield Road	,,	,,	,,
,, 25	Holy Cross, Fontenoy St. ...	,,	,,	,,
,, 26	St. Poylcarp's, Gordon St.	,,	Mumps	,,
,, 27	Aigburth C.E., Aigburth Vale	,,	Measles, &c.	Until 20th June
,, 27	St. Bridget's, Bagot Street	,,	,,	,,
,, 31	All Saints', Oakfield	,,	,,	Until 27th June
June 3	Higher Grade, Aspen Grove	,,	Measles and Chickenpox	Three weeks
,, 3	St. Francis, Garston ...	,,	Measles and Whoop Cough	,,

Date of Notice.	School.	Department or Departments.	Nature of Disease.	Period of Closure.
July 9	St. Margaret's, Princes Rd.	,.	Chickenpox and Whoop Cough	Until after Summer Holidays
Oct. 26	St. John the Baptist, Tue Brook	,.	Measles, &c.	Three Weeks
,, 26	Lister Drive Council	,,	,,	,,
,, 28	St. John's, Walton	,,	,,	,,
Nov. 9	Rice Lane Council	,,	,,	,,
Dec. 1	Townsend Lane Council ...	,	,,	,,
,, 1	Anfield Road Council	,,	,,	Until after Christmas Holidays
,, 20	St. Margaret's, Princes Rd.	Whole Scl.	Mumps, &c.	,,

Easter Hoildays—24th March to 4th April.
Summer Holidays—1st July to 8th August.
Christmas Holidays—22nd December, to 9th January.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

The medical inspection of school-children has helped the administration of the Children Act of 1908, and the Liverpool Corporation (General Powers) Act of 1908, in dealing with children who are sent to school in a filthy and verminous condition. The condition is an illustration of the miseries to which neglected children of school age are subjected. To a less extent the work has also helped to bring to light many cases of neglect of children below school age, and although these children are unhappily not included within the scope of the Acts mentioned, an endeavour has been made to improve the conditions under which these also were living—a more difficult procedure, as they are not under the daily observation which obtains in the case of school children.

It would appear that the duty of making provision for the cleansing of verminous children devolves upon the Education Authority. So far the Education Authority have given the necessary permission for the work to be done, and the Baths Committee have sanctioned the cleansing of a certain number of children at the Mansfield Street Baths. The bulk of the work, however, has been undertaken solely by the Health

Committee, who have authorised members of their staff to convey children to the Charters Street Disinfecting Station, where special washing accommodation is provided. Practically the entire cost of wages, transport, and washing accommodation has been provided by the Health Committee. The staff engaged, notably the Female Staff, has rendered most valuable assistance, many times supplementing their actual duties by supplying food and other necessaries for the children.

So far as it has gone, the work has been good and effective, but it is very far from meeting the pressing necessities of the case, and it is absolutely necessary, in order to efficiently cope with it, that more suitable bathing establishments should be available.

At present bathing facilities are provided for children in various parts of the city, but it is questionable whether it would be desirable to identify these places as depôts for the cleansing of verminous children, unless after some special adaptation for the purpose, such as the provision of separate washing places with separate entrances. This observation would apply alike to baths and wash-houses, and to washing places in connection with the Day Industrial Schools. It does not appear desirable to associate this particular measure with the ordinary bathing and washing accommodation for ordinary persons of cleanly habit.

It has been suggested that the whole of the cost should be borne by the Education Committee, but this does not appear to be altogether an equitable proposal, since large numbers of children of the poorest class, with whom the Education Committee have no concern whatever, are also neglected and verminous, and these will continue to be dealt with as heretofore under the instructions of the Health Committee.

Almost invariably with this form of child neglect, as with the somewhat analogous cases of neglecting to provide food, there is a history of drink. Again and again, the fact that the mother or father or both are heavy drinkers whenever money can be got, is noted in connection with this condition.

The benefits arising from a thorough cleansing of the body and clothes have been appreciated by the children themselves, and from time to time children present themselves at the Depot of their own accord, and request that they may be cleansed again.

The staff continue as before to visit cases of communicable skin and eye conditions, and the following table shows the number of school cases visited during the last three years:—

	1908.	1909.	1910.
Ringworm	1,684	2,168	2,521
Itch	468	571	724
Sore Eyes	2,056	3,003	3,439
Sore Heads, Impetigo, Eczema, &c.	3,088	3,860	5,116
Other Skin Diseases	2,253	1,820	1,916
Verminous cases	643	2,681	5,110
Neglect cases	1,412	2,923	3,909
Total	11,404	17,026	22,735

Although most of these cases are reported from the Education Department, yet a very large number are referred to the office of the Medical Officer of Health by nurses and others who are more or less in daily contact with children, such as teachers, visitors, &c., and also by private individuals.

PUBLIC ELEMENTARY SCHOOLS.

The Public Elementary Schools in the City are visited once each fortnight by the District Sanitary Inspectors, and an examination made of the sanitary conveniences. In all cases where the water-closets or latrines are found dirty or defective, notices are served on the School Managers or the Director of Elementary Education, and in each case the necessary work has been done. The following table shows the number of visits, also the number of notices issued:—

	1909.	1910
No. of Visits to Schools	2,730	2,754
,, found incorrect	160	96
,, Water-closets and Latrines found dirty or defective	217	154
,, Notices issued for defects	252	165
,, ,, ,, dirty closets	—	—

NOTICES TO MASTERS OF SCHOOLS.

The arrangements have been continued with the Education Committee that notice shall be sent to the Committee and postcards to the Head Masters of the various schools informing them when children from infected houses attend their schools. 13,659 cards were sent last year, as against 12,859 in the preceding year.

FACTORY AND WORKSHOP ACT, 1901.

BAKEHOUSES.

The sanitary control of Bakehouses is dealt with under the Factory and Workshop Act and Public Health Acts; the regulations prescribed were set out in the Annual Report for 1904.

By Section 133 of the Workshop Act, 1901, if any child, young person, or woman is employed in a bakehouse, the Medical Officer shall, on becoming aware thereof, give a written notice to His Majesty's Inspector of Factories.

Where any room or place used as a bakehouse is in such a state as to be, on sanitary grounds, unfit for use as a bakehouse, the occupier is liable on summary conviction to a fine not exceeding forty shillings.

Thirty-five bakehouses were added to the Register during 1910, 5 are new ground-floor bakehouses for bread bakers and confectioners; the remaining 30 are confectioners only.

During the year thirteen plans were submitted and approved of for ground-floor bakehouses.

Number of Bakehouses on Register, 31st December, 1910... ...	872
,, Bakehouses added to Register during 1910	35
,, Bakehouses struck off Register during 1910	33
,, Visits paid to bakehouses	4,690
,, Bakehouses found dirty (walls and ceilings)	442
,, Notices issued for lime-washing	75
,, Bakehouses lime-washed without notice	367
Number of Notices issued to repair drains and waste pipes ...	3
,, ,, ,, to repair defective floors, walls, ceilings roofs and pavement lights	14

Number of Notices issued to cleanse floors, windows, areas, tables and troughs				3
,,	,,	,,	for deficient ventilation	3
,,	,,	,,	to cease using a room as a bakehouse owing to bedroom being in direct communication	1
,,	,,	,,	to cease to use as bakehouses places underground not in conformity with Act, 1901	4
,,	,,	,,	to remove refuse from within bakehouse	1
Number of References to Government Factory Inspector ...				23

All the above notices were complied with by the owners or occupiers.

UNDERGROUND BAKEHOUSES.

The number of underground bakehouses on the register at the end of the year was 187. Of this number 165 are in use, 18 are unoccupied and four have been structurally altered and occupied for other purposes Since the passing of the Act in 1901, two hundred and thirty-nine underground bakehouses have ceased to be used for baking purposes.

Administration of the Factory and Workshop Act, 1901, in connection with FACTORIES, WORKSHOPS, WORKPLACES & HOMEWORK.

The following Tables are prepared by request of the Secretary of State :—

1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories ... ... (Including Factory Laundries.)	201	97	—
Workshops ... ... (Including Workshop Laundries.)	14,691	1,363	7
Workplaces ... ... (Other than outworkers' premises included in Part 3 of this Report.)	723	122	—
Total	15,615	1,582	7

2.—Defects Found in Factories, Workshops and Workplaces.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied	Referred to H.M. Inspector.	
*Nuisances under the Public Health Acts :—**				
Want of cleanliness	491	483	—	3
Want of ventilation	74	73	—	—
Overcrowding	3	3	—	—
Want of drainage of floors	21	20	—	—
Other nuisances	752	736	—	2
†Sanitary accommodation insufficient	49	46	—	2
†Sanitary accommodation unsuitable or defective	454	415	—	—
†Sanitary accommodation not separate for sexes..	46	37	—	—
Offences under the Factory and Workshop Act :—				
Illegal occupation of underground bakehouse (S. 101)	4	4	—	—
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	444	444	—	—
Other offences ... ... (Excluding offences relating to outwork which are included in Part 3 of this Report).	—	—	—	—
Total	2,338	2,261	—	7

* Including those specified in Sections 2, 3, 7 and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.

† Section 22 of the Public Health Act Amendment Acts, 1890, has been adopted by the City Council. The standard of sufficiency and suitability of sanitary accommodation for persons employed in Factories and Workshops is in accordance with the Sanitary Accommodation Order of 4th February, 1903.

3—Home Work.

* NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.											Number of Inspections of Outworkers' premises.	OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.						Numbers of Addresses of Outworkers received from other Councils.	Numbers of Addresses of Outworkers forwarded to other Councils.	Prosecutions.									
	Twice in the year.			Once in the year.														
	a Lists.	*a* Outworkers.		Lists.	*a* Outworkers.				Notices served on Occupiers as to keeping or sending Lists.	Failing to keep or permit inspection of Lists.	Failing to send Lists.		Instances.	Notices served.	Prosecutions.	Instances.	Orders made (S. 110).	Prosecutions (Sections 109, 110).
		Contractors.	Workmen.		Contractors.	Workmen.												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Wearing Apparel—																		
(1) Making, &c.	576	1,977	1,025	22	36	20	41	89	55	—	—	1,045	—	—	—	1	1	—
(2) Cleaning and Washing	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sacks	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Furniture and Upholstery	2	15	6	—	—	—	—	1	—	—	—	6	—	—	—	—	—	—
Fur Pulling	—	1	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Umbrellas, &c.	—	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paper Bags	2	5	9	—	—	—	—	—	—	—	—	9	—	—	—	—	—	—
Boxmaking	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Basket Making	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Electro-Plate	—	21	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Making of nets	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Feather Sorting	—	—	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—
Artificial Flowers	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Processes incidental to above	—	16	4	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—
Total	580	2,063	1,048	23	37	20	42	90	55	—	—	1,068	—	—	—	1	1	—

* Several Employers give out work of more than one of the classes specified in column 1. The lists are included among those in column 2 against the principal class *only*, but the outworkers are assigned in columns 3 and 4 into their respective classes.

The figures in columns 2, 3 and 4 are the *total* number of lists (received from employers who sent them both in February and August as required by the Act) and of the entries of names of outworkers in those lists. They are, therefore, double of the number of such employers and (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name is often repeated.

4—Registered Workshops.

Workshops on the Register (S. 131) at the end of the year.	Number.
Workshops	3,578
Cooking Kitchens of Restaurants	355
Bakehouses	871
Total number on Register	4,804

5.—Other Matters.

Class.		Number.
Matters notified to H.M. Inspector of Factories:—		
Failure to affix Abstract of the Factory and Workshop Act (S. 133)		99
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5)	Notified by H.M. Inspector ...	268
	Reports (of action taken) sent to H.M. Inspector	268
Other		8
Underground Bakehouses (S. 101)		
Certificates granted during the year		—
In use at the end of year		165

FACTORY AND WORKSHOP ACT, 1901.

The Inspectors appointed under the above Act for sanitary purposes have visited a large number of Workshops and Workplaces, the summary of which is appended:—

SUMMARY OF VISITS PAID TO WORKSHOPS AND WORKPLACES.

	1909.	1910.
Bakehouses	4,664	4,690
Bamboo Workers	4	3
Basket Makers	30	17
Blindmakers	8	9
Block Makers	2	6
Boot Makers	886	884
Bottlers	28	82
Bottle Washers	17	—
Box Makers	16	12
Brush Makers	29	28
Cabinet Makers and Joiners	1,054	937
Canned Goods	124	60
Cap Makers	25	20
Carvers and Gilders	97	64
Chair Makers	49	32
Chemists' Sundries Manufacturers	31	43
Coach Builders	80	47
Confectioners	83	93
Coopers	113	102
Cork Cutters	38	38
Cotton Sorters	161	73
Cycle and Bassinette Makers	98	58
Dentists	21	25
Dressmakers	1,178	877
Drysalters	40	43
Electricians	11	24
Engravers	100	58
Firewood Manufacturers	27	7
Fish Curers	51	27
Flag Makers	13	13
French Polishers	145	85
Furriers	25	14
Galvanisers	28	6
Glass Blowers	7	5
Ham Curers	—	8
Image Makers	6	7
Knitters	14	15
Laundries	1,061	921
Marble Masons	24	17
Marine Stores	707	45
Mattress and Bed Makers	47	47
Metal Polish Makers	9	7
Milliners	277	228
Mineral Water Manufacturers	7	5
Musical Instrument Makers	21	21
Opticians	14	8
Packers	—	53
Paint and Varnish Manufacturers	17	31
Paper Cutters, &c.	8	9
Photographers	65	43
Pickle and Sauce Manufacturers	54	33
Picture Framers	59	50
Pipe Mounters	4	3
Plumbers	123	94
Preserve Makers	1	—
Relief Stampers	2	11
Restaurants	1,007	723
Rubber Goods Manufacturers	15	14
Sack and Bag Makers	109	137
Saddlers	91	91
Sailmakers	31	25
Sausage Makers	—	3
Sign Writers	25	30
Smiths	693	763
Tailors	2,264	2,134
Tarpaulin Makers	34	38
Trunk and Portmanteau Makers	73	45
Umbrella Makers	34	36
Underclothing Makers	305	227
Upholsterers	155	130
Watchmakers and Jewellers	209	161
Wheelwrights	115	122
Wig Makers	22	17
Wire Workers	33	22
Various	95	151
Total	17,113	15,414

FACTORY AND WORKSHOP ACT, 1901.

FACTORIES.

Factories include all places in which mechanical power is used in aid of the manufacturing processes.

The 201 inspections of Factories referred to in the foregoing tables represent 88 Factories, which were inspected by the District Sanitary Inspectors principally as a result of complaints being received. The duty devolving upon the Health Department in connection with Factories is the enforcement of the provision of suitable and sufficient sanitary conveniences.

WORKSHOPS.

Workshops include any premises (not being Factories) in which manual labour is exercised by way of trade, or for purposes of gain in, or incidental to, the making, altering, repairing, finishing or adapting for sale of any article, and to or over which the employer of the persons working there has the right of access or control.

The Workshop Inspectors made 10,001 inspections of Workshops, and on 2,831 occasions the premises were found to be incorrect. The number of inspections in 1909 was 11,442. This does not include bakehouse workshops visited by the Bakehouse Inspector.

There are approximately 300 basement workshops, but all of them comply with the essential requirements in respect to light and ventilation, and are, in the main, situated in the centre of the City.

A large number of new workshops has been added to the Register. Thirty-two workrooms have been measured during the year, as compared with 128 in 1909.

WORKPLACES.

Workplaces include any place where work is done permanently, and where people assemble together to do work permanently of some kind or other. The kitchens of restaurants, &c., though they are not workshops, come within the meaning of the term "workplace."

723 visits were paid during the year to the kitchens of restaurants by the Workshop Inspectors; on 60 occasions the premises were incorrect. The number of visits in 1909 was 1,007. Attention is being particularly paid to the nuisance arising from the removal of swill, and the Inspectors make a practice of visiting the premises early in the day when the swill is generally removed.

The nuisances found were in most instances remedied on notices being served, but in several cases it was necessary to take further proceedings, with the result that fines amounting to £1 2s. 6d., were inflicted The fines in the previous year amounted to £3 1s. 0d.

Several defects were found which could not be dealt with by this Department, and they were referred to the City Engineer, Water Engineer and the Building Surveyor.

HOME WORK.

In accordance with Section 107 of the Factory and Workshop Act, 598 lists of outworkers were received (296 in February, and 302 in August) giving the names and addresses of 3,258 employees. The number of lists received in 1909 was 603, containing the names of 3,182 employees.

On examination of the lists they were found to contain 2,100 Workshops or Domestic Workshops already on the Register (997 in February and 1,103 in August). The other addresses, excepting those situated outside the City, were visited by the District Sanitary Staff, and in several instances the premises were found to be new workshops or Domestic Workshops, *i.e.*, where the work done constituted the sole or principal means of living of the family. These were placed on the Workshop Register, to be visited periodically by the Workshop Inspectors. The home work in 1,068 cases was found to be an additional source of income only.

LAUNDRIES.

In the course of an Inquiry into the circumstances of the Chinese resident in the City, it was reported that Chinese laundries have been established in Liverpool for a great number of years, and appear to be carried on with success. There are 44 of these laundries registered as workshops, which are periodically inspected by the Workshop Inspectors under the Factory and Workshop Act. They compare quite favourably with the ordinary English laundries (of which there are 239).

FURNITURE REMOVERS' VANS.

	1909.	1910.
Number of Visits	201	203
,, Vans examined	101	162
,, found correct	100	156

In each case where the vans or wraps were found dirty, a notice was served on the owner to cleanse them.

SHOP HOURS ACTS, 1892—5.

The object of these Acts is to prevent the employment of young persons for such an excessive number of hours as will prejudice the health of these employees.

During 1910, under the above Acts there have been 7,258 visits and re-visits paid to shops during the day, and 6,992 re-visits made after six o'clock in the evening; in 22 instances the hours were found to be incorrect, and in 378 instances a copy of the Act was not exhibited, as required by the Act of 1892.

The persons concerned have generally evinced readiness to comply with the requirements of the Acts, and have thus lessened the difficulties in its administration. The number of occasions in which it was necessary to take proceedings during the last two years is small.

	1909.	1910.
Number of day visits to Shops	6,313	6,333
,, Shops found without copy of Act exhibited	466	378
,, ,, hours excessive	—	22
,, copies of Act supplied	421	442
,, re-visits to Shops during day *re* cards	219	360
,, Shops found incorrect	51	112
,, revisits to Shops during day *re* half-holiday	—	565
,, Shops found incorrect	—	36
,, re-visits to Shops after 6 p.m... ...	5,964	6,992
,, Shops found incorrect	139	85
,, Informations for excessive hours ...	—	1
,, Convictions	—	1
,, Informations for not exhibiting Notice of Acts and Requirements as to hours of work	3	—
,, Convictions	2	—
Total number of Informations	3	1
,, ,, Convictions	2	1
Total Amount of Fines and Costs	£0 19 0	£1 4 6

SEATS FOR SHOP ASSISTANTS ACT, 1899.

The object of the Act is to provide seats for female assistants.

	1909.	1910
Visits for the purposes of the Act	620	730
Found correct	582	703

Seats in each case were subsequently provided.

EMPLOYMENT OF CHILDREN ACT, 1903.

This Act is intended for the limitation and regulation of child labour, and affects children of school age, viz., under 14 years of age. The Act prohibits a child being employed between the hours of 9 p.m. and 6 a.m., although these hours have been varied by means of bye-laws which have been prepared by the Council and have been sanctioned by the Home Secretary. These bye-laws were printed in detail in the Medical Officer's Annual Report for 1908.

The Act contains clauses prohibiting children carrying burdens likely to cause them injury, and from being employed in any occupation likely to be injurious to their lives, limbs, health or education.

Another clause prohibits children who are working half-time under the Factory and Workshop Act from being employed in any other occupation.

There are other clauses relating to children engaged in street trading. These have been dealt with by the Watch Committee, and are enforced by the Police.

The following table shows the periods of the day at which visits were made and result of the action taken :—

	No. of Visits.		No. of Contraventions Found.	
	1909.	1910.	1909.	1910.
Before 7 a.m. or after 8-15 a.m. ..	34	225	3	49
,, 12-30 p.m. or after 1-15 p.m. ...	6	10	—	—
,, 5 p.m. or 5-30 p.m. (to barbers' shops) ...	92	229	—	21
After 8 p.m. or 8-30 p.m. (to barbers' shops)	952	857	100	84
Thursdays (to barbers' shops)	91	142	6	—
Saturdays before 10 a.m. (to barbers' shops)	8	38	3	11
Saturday *re* Maximum Hours (each shop is usually visited 4 times)	1,307	3,339	—	103
Saturday after 9 p.m.	219	91	26	32
Sunday after 9 a.m.	235	108	15	33
,, before 3 p.m. or after 4 p.m.	—	64	—	9
Total visits... ...	2,944	5,103	153	342

	1909.	1910.
Number of Informations	41	129
,, of Convictions	41	96
Amount of Fines and Costs ...	£38 4 0	£88 3 0

MIDWIVES ACT, 1902.

At the close of 1910 there were, so far as could be ascertained, 321 women in Liverpool qualified under the Midwives Act to attend confinements.

During the year, nine midwives died and 53 left the City; against these numbers 19 came into the City from outside districts, and 30 were added to the Roll by the Central Midwives Board. Of the last number 15 were admitted after passing the examination held by the Central Midwives Board, and the remaining 15 were admitted under the Rule B2, namely, the extension granted by the Privy Council to those who failed to apply for admission when the Roll was originally formed in 1903, and who also would have been entitled to be placed on the Roll had they so applied.

The following table gives the qualifications of these women, and also a comparison with the previous year:—

	1909.	1910.
Central Midwives Board	108	117
Ladies' Charity and Lying-in Hospital	105	93
London Obstetrical Society	64	54
Rotunda Hospital, Dublin	6	3
Glasgow Maternity Hospital	2	2
Queen Charlotte's Lying-in Hospital	1	0
City of London Lying-in Hospital	0	1
Manchester Maternity Hospital	2	2
National Maternity Hospital, Dublin	1	3
Coombe Lying-in Hospital, Dublin	2	2
St. Mary's Hospital, Manchester	1	1
Dundee Maternity Hospital	1	0
In Bona-Fide practice prior to 31st July, 1901 ...	41	43
	334	321

Of the 321 Midwives residing in Liverpool, 197 are in private practice as midwives, 42 are employed in Public Institutions as midwives or maternity nurses, and 82 are employed as private maternity nurses under the supervision of a medical practitioner or in some other employment.

A total of 17,257 births were attended by women out of a total of 23,054 births which occurred in the City during the year 1910. Included in this number are 2,602 births attended by midwives on the Staff of the Ladies' Charity, and 669 births attended by uncertified women.

The extent of the practice of individual midwives varies very considerably, one midwife having attended over 500 cases, while 90 attended less than 50 cases. The average was 70 cases to each midwife in practice.

STATEMENT OF NOTIFICATIONS OF BIRTHS RECEIVED DURING THE YEARS:—

Notifications Received from	1908. Births.	1908. Per centage of Births Registered in the City.	1909. Births.	1909. Per centage of Births Registered in the City.	1910. Births	1910. Per centage of Births Registered in the City.
Certified Midwives	13,083	54·79	13,184	55·89	13,619	59·07
Medical Attendants.....	2,985	12·50	2,300	9·75	1,998	8·67
Poor Law Institutions	787	3·29	840	3·56	803	3·48
Ladies' Charity Maternity Hospital...	426	1·78	448	1·90	487	2·11
Ladies' Charity District Homes	1,745	7·30	1,902	8·07	1,757	7·62
Uncertified Women.....	685	2·86	788	3·34	621	2·69
Parents	324	1·35	277	1·17	223	·96
	20,035	83·87	19,739	83·68	19,508	84·60

Total Number of Births registered in the City	1908 —	23,891
	1909 —	23,591
	1910 —	23,054

STILL BIRTHS.

The number of still births notified by midwives was 391, which is at the rate of 2·8 per cent. of the births attended. The prevalence of still births in the practice of midwives varies very much, the highest rate being 17 per cent., the lowest being 0·55 per cent., in the practice of midwives attending over 20 confinements per year. In no case does a midwife give a certificate of still birth unless she is present at the time of the birth; she is instructed that if the birth should take place before her arrival she must report the matter to the Coroner, who, upon inquiry, grants a certificate for the burial of the body. The Medical Officer of Health has arranged for still births to be received at the Mortuary, Ford Street, where, if the parent is unable to pay the fee the body is taken charge of and arrangements made for its burial.

The following figures give the months of pregnancy during which the still births took place, viz.:—

	1910.
Sixth month	31
Seventh month	83
Eighth month	69
Ninth month	205
Not specified	3
Total	391

In 12 cases the child was illegitimate.

MEDICAL ASSISTANCE.

Under the Rules issued by the Central Midwives Board, a midwife must advise that medical assistance shall be called in where there is any abnormal circumstance connected with the confinement.

The following Table gives the details of the complications for which medical assistance was required during the past year:—

	1910.
Abnormal Presentation—	
Brow or Face Presentation	32
Occipito-posterior Presentation	13
Transverse Presentation	37
Breech Presentation	27
Foot Presentation	8
Cord Presentation	12
Placenta Prævia	22
Deformed Pelvis	53
Anti-partum Hæmorrhage	35
Post-partum Hæmorrhage	44
Retained Placenta or Membranes	75
Ruptured Perinæum	59
Multiple Births	10
Malformation of Child	13
Abortion or Premature Birth	37
Pyrexia	46
Eclampsia	16
Ophthalmia	7
Obstructed Labour, Uterine Inertia, or requiring Instrumental Assistance	407
Various or not definitely specified	62
Total	1015

The increase in the number of notifications over previous years would show that midwives are availing themselves of medical assistance to a larger extent through following closely the requirements of the rules of the Central Midwives Board.

Since the Act came into operation, the Health Committee have, on the advice of the Medical Officer of Health, consented to pay a fee of one guinea for every case where emergency assistance had been rendered by a medical practitioner at the request of a midwife, and in which the fee could not be recovered either from the patient's friends or from the Boards of Guardians. Where part payment is made from

these sources, the Health Committee have made up the balance. This arrangement has given general satisfaction. The numbers of references to medical men vary slightly each year. The total amount paid during each of the last five years has been:—

	£	s.	d.
1906	240	6	0
1907	213	9	0
1908	357	2	6
1909	348	12	6
1910	464	16	0

It may perhaps be worth mentioning that the Medical Officer of Health conferred with the members of the Liverpool Medical Institution when the Act was passed upon the question of the fee, since it was obvious that some emergencies would involve much greater time and anxiety than others, but the uniform fee was thought the best, as it would be impossible to discriminate.

It must be remembered that this fee is for emergency assistance only, and it does not involve any subsequent attendance by the medical man. If he chooses to attend he has no additional claim upon the Health Committee.

The number of visits paid for the purpose of investigating accounts was 656; it may be mentioned that these visits have formed a very useful link between the midwives and the Medical Officer's Department, as by this means any special circumstances are brought to light.

PUERPERAL FEVER.

The number of cases of Puerperal Fever notified to the Medical Officer of Health during the year was 41, of which 9 proved fatal. This gives a death rate of 0·4 per 1,000 births in the City, a decrease on the figure for last year, and still below that of previous years.

Twenty-one cases were removed to Hospitals:—2 to Brownlow Hill Infirmary; 4 to Mill Road Infirmary; 2 to Walton Workhouse Infirmary; 1 to the Samaritan Hospital; 11 to the City Hospital, Fazakerley; and 1 to the City Hospital, Netherfield Road.

After the usual investigations were made, 24 cases, of which 5 died, were found to have occurred in the practice of midwives. One midwife had 2 cases and 22 midwives had 1 case each.

Four cases, of which one died, occurred amongst patients attended by uncertified women.

Every precaution was taken to prevent the disease being conveyed to other women, and it is gratifying to remark that much greater care is now taken by midwives in cleansing themselves and their clothing and appliances than in previous years.

The keeping of temperature charts during the puerperal period has proved of immense benefit in helping to direct the attention of the midwife to the possibility of puerperal complications, and enables her to recognise the necessity of calling in medical assistance at the earliest indication of danger.

ROUTINE VISITS TO MIDWIVES.

Rule 23 laid down by the Central Midwives Board states as follows:—
"The Local Supervising Authority shall make arrangements to secure "a proper inspection of the Register of cases, bag of appliances, etc., of "every midwife practising in the district of such authority, and when "thought necessary, an inspection of her place of residence, and an "investigation of her mode of practice."

In accordance with this Rule, 1,513 visits were paid, and a generally satisfactory condition is to be reported. The general condition of the homes of midwives has shown marked improvement, as also their personal cleanliness.

The adoption of the Notification of Births Act, which renders it obligatory on the part of the medical attendant or midwife, as well as the father of the child, to notify the occurrence of a birth, has been a very valuable aid to the working of the Midwives Act.

OPHTHALMIA NEONATORUM.

This is an extremely serious affection which attacks the eyes of newly-born infants. It is usually caused by the entrance of certain bacteria into the eyes at the time of birth. The symptoms, redness and swelling of the eyelids, make their appearance in about three or four days after birth, and the disease frequently runs such an acute course that if proper treatment is not applied immediately, the eyes are permanently damaged and the child is rendered blind for life.

The extent to which this disease is prevalent in this country is shown by the statements made by well-known authorities that over one-third of the inmates of schools for the blind have lost their sight as a result of this disease. On the other hand, it is no less certain that if the disease is brought under efficient treatment when the symptoms first make their appearance the eyes can be saved from serious injury and the sight preserved.

Under the Midwives Act, midwives are compelled to inform the Local Supervising Authority (in Liverpool the Health Authority) of such cases, and to call in medical assistance. Much care has been taken to impress upon midwives the serious character of this disease, and they have been very quick to recognise it, so that now the majority of cases have prompt medical advice.

A large amount of this good result has been due to the provision of a small ward of four beds at St. Paul's Hospital and the interest taken in the cases by Dr. A. Nimmo Walker. In this ward the infants of but a few days old can be received with their mothers in order that the necessary treatment may be carried out, and also that they may not be deprived of their natural nourishment. This last point is most important, as Dr. Walker reports that he is "more and more impressed with the difficulty of saving severely infected eyes in bottle-fed infants."

Number of cases of Inflammation of the Eyes in infants reported to the Medical Officer of Health:—

1910	307

Of the above 307 cases, 162 were notified by Midwives, 7 by private practitioners, 18 from St. Paul's Eye Hospital, and 120 were discovered by the Female Sanitary Inspectors in the course of making enquiries under the Notification of Births Act.

24 cases were removed to hospital; 21 to St. Paul's, 1 to the Eye and Ear Infirmary, Myrtle Street, 1 to the Royal Infirmary, and 1 to Mill Road Infirmary.

As was mentioned in last year's Report, Miss E. L. Rathbone generously offered to defray the expense of providing a hospital trained nurse to visit the homes of those patients whose parents were unable to provide adequate attention. For this work Miss Housden was selected, and she was placed on the staff of the Medical Officer of Health. Since her appointment 266 cases of Ophthalmia have been dealt with, involving 1,387 visits. Some of these cases required several visits during the 24 hours, a large proportion requiring visits out of office hours.

It is extremely difficult to estimate the extent to which the community has benefited by this work, but it is probable that in a large number of these cases the sight would have been seriously damaged but for the prompt attention afforded by these visits. As it is, out of the total number of cases there were only 5 in which sight was impaired in one eye, and one case in which there was complete loss of sight. In all of these six cases the disease was found to be well advanced when first visited, and as a consequence the treatment was very difficult and could only effect a small amount of improvement in the sight.

Six midwives were reprimanded for neglecting to notify inflammation of the eyes in infants, but the midwives as a whole now recognise the importance of prompt notification in all cases of Ophthalmia in infants, however slight the symptoms may be, and a large proportion of the good results obtained this year is due to their prompt assistance.

THE AMBULANCE AND DISINFECTING STAFF.

The following table shows the number of patients removed to Hospitals during 1910, compared with the number removed during the preceding year, by Officers of the Ambulance Staff, and the Hospitals to which they were taken :—

City Hospital North, Netherfield Road.	City Hospital South, Grafton Street.	City Hospital, Park Hill.	Brownlow Hill.	City Hospital East, Mill Lane.	Children's Infirmary.	Royal Infirmary.	Smithdown Road.	Southern Hospital.	City Hospital, Fazakerley.	Port Sanitary Hospital.	David Lewis Northern Hospital.	St. Paul's Eye & Ear Hospital.	Fazakerley Annexe.	Hahnemann Hospital.	Total.
837	677	788	4	957	3	—	1	1	1552	12	2	10	446	2	5,292

Details of the methods employed have been given in previous Annual Reports, in which also the general procedure in disinfection has been explained.

On December 1st, the Health Committee provided a 20 horse-power Motor Ambulance to be used as a conveyance for the removal into hospital of patients suffering from infectious disease.

Since the introduction of this ambulance, patients have been removed much more speedily and comfortably to the City Hospitals than would have been the case had they been removed by horse Ambulance.

This ambulance has been in use about 16 hours a day, it is doing the work of four horses, and so far has given entire satisfaction.

INFECTED PREMISES STRIPPED AND DISINFECTED BY STRIPPING STAFF.

	1909.	1910.
Houses	8,939	10,211
Rooms Stripped or sprayed with solution of Perchloride of Mercury	28,129	30,046
,, Disinfected with sulphurous gas	9,558	10,175
Number of Notes to Owners after stripping and cleansing	2,726	2,634
,, Visits by Superintendent of Staff	1,971	1,972
,, Enquiries respecting disinfection	11,126	12,078

LIBRARY BOOKS FOUND IN INFECTED HOUSES.

	1909.	1910.
Number of Library Books disinfected	1,674	2,006
,, ,, ,, destroyed	68	99
Amount paid as compensation	£6/14/6	£11/2/3

For a number of years it has been the practice to inquire for library books at every house where infectious disease is reported, and to remove from the house any books found. The inquiry also determines whether or not the books have been used by the patient, or have been in the sick room, and incidentally the character of the house and of the occupants is reported upon, and further information for other purposes ascertained.

The manner in which the books are dealt with is explained in the Report for 1909,

THE DISINFECTING APPARATUS.

The number of articles disinfected at the various apparatus during the year amounted to 74,726, and consisted of the following articles:—

Date. 1910.	Number of Beds.	Number of Mattresses.	Number of Pieces of Bedding.	No. of Pieces of Wearing Apparel.	Total Number of Articles.
January	561	104	3,341	2,316	6,322
February	420	100	2,741	2,864	6,125
March	515	103	3,159	3,332	7,109
April	463	117	2,898	4,226	7,704
May	436	115	2,838	4,465	7,854
June	444	55	2,377	3,429	6,305
July	447	102	2,420	1,018	3,987
August	476	74	2,517	1,341	4,408
September	556	81	3,101	2,796	6,534
October	553	114	3,198	2,068	5,933
November	536	67	3,261	2,580	6,444
December	542	81	3,649	1,729	6,001
Totals	5,949	1,113	35,500	32,164	74,726

The number of articles destroyed at the various apparatus during the year amounted to 2,246, compensation being paid in conformity with the provisions of the Public Health Act. Details are as follows:—

Date. 1910.	Number of Beds.	Number of Mattresses.	Number of Pieces of Bedding.	No. of Pieces of Wearing Apparel.	Total Number of Articles.
January	53	51	169	14	287
February	42	69	190	—	301
March	36	46	159	14	255
April	33	56	145	1	235
May	30	42	145	1	218
June	37	20	69	—	126
July	36	36	97	—	169
August	20	24	46	—	90
September	29	25	74	2	130
October	25	36	93	—	154
November	33	34	101	—	168
December	21	24	68	—	113
Totals	395	463	1,356	32	2,246

PRINCE'S DOCK MORTUARY.

The Mortuary at the Prince's Dock is for the reception of the bodies of persons who have been drowned, killed, &c., and upon which the Coroner desires to hold inquests. Bodies are taken to this Mortuary by the police, and when it may be necessary to make post-mortem examinations, any medical gentleman may have the assistance of an inspector on sending a communication to the Ambulance Superintendent, 54, Gascoyne Street.

BODIES REMOVED TO THE PRINCE'S DOCK MORTUARY.		
Number from River.	Number from City.	Total.
8	215	223

FORD STREET MORTUARY AND DISTRICT MORTUARIES.

BODIES REMOVED TO MORTUARIES.						
Green Lane.	Lark Lane.	Wavertree.	Ford Street.	Park Hill.	Smithdown Road.	TOTAL.
—	2	—	237	—	—	239

The Mortuary in Ford Street is provided for the reception of bodies, which cannot be kept at the homes in which death had taken place, without injury to the health of the inmates. The address of the caretaker is 6, Pickering Street.

The District Mortuaries, it will be seen, are seldom used. For the convenience of juries, as well as for other reasons, it is preferable that bodies should be conveyed to the Central Mortuaries.

The method of transport of the bodies of persons killed, or found dead in the street, has been more adequately provided for.

The Health Committee have authorised the Head Constable to make arrangements with certain firms of undertakers in suitable parts of the City, to supply a hearse on short notice, together with a shell coffin, for these purposes.

This plan is expeditious, inasmuch as only short distances have to be travelled by the hearse to the place where the body is lying; it is working well.

CREMATORIUM.

The Crematorium in Anfield Cemetery is availed of by an increasing number of persons as a means of reverent disposal of the dead by cremation, but the system has not yet found the favour which it does in many important centres of population throughout Europe and America. The building is of attractive appearance, and the surroundings are appropriate.

As long ago as 1890, the subject of providing a Crematorium was under consideration in Liverpool, and amongst other places where the matter was discussed was the Medical Institution, the members of that Institution passing a formal resolution in favour of the provision of a place of this character.

In the autumn of 1891 the movement acquired greater strength, and the project received substantial support from Mr. Alfred Holt, Mr. Bushell, and a number of other gentlemen. Plans were drawn out and suitable ground acquired from the spare lands of Anfield Cemetery. The first stone of the Crematorium was laid August 24th, 1894, by Sir Wm. B. Bowring, Bart., and on September 11th, 1896, the building was formally opened by the Earl of Derby, each being respectively Lord Mayor during those years.

When the Corporation became the Burial Authority for the City, the suggestion which had been previously made of transferring the Crematorium to the control of the Burials Committee was carried out. Subsequently, in October, 1908, the administration was taken over by the Crematorium Sub-Committee. In order, however, that the continuity of

the administration should be preserved, Mr. Alfred Holt, one of the original founders, and Dr. Nicholson, the former Medical Referee, were asked to assist the Sub-Committee as Advisory Members, and this they kindly consented to do.

Since 1896, when the Crematorium was opened, until the end of 1910, 501 cremations have taken place. The following table gives the number for each year.

1896	2
1897	10
1898	27
1899	23
1900	40
1901	40
1902	54
1903	35
1904	40
1905	35
1906	46
1907	34
1908	32
1909	46
1910	37
	501

The Crematorium buildings are open to the Public from 9-30 a.m. to 4 p.m. on Week-days, and from 2 pm. to 4 p.m. on Sundays. All information, with the necessary forms, may be obtained from the Manager at the Crematorium, by letter or telephone (Telephone No. 267, Anfield), and at the Public Health Department, Municipal Buildings,

PROCEEDINGS UNDER THE DISEASES OF ANIMALS ACTS, 1894 TO 1903.

The duties of the Inspectors under the Diseases of Animals Acts, 1894 to 1903 have been explained in the Report for 1909.

The accompanying table gives the result of the visits made under the Acts or under the Orders of the Board of Agriculture :—

	1909.	1910.
Number of Visits and revisits to Railway Stations, including inspections made on Sundays ...	3,073	3,322
,, Inspections and reinspections of Pens ...	107,793	111,948
,, found clean	78,646	79,486
,, ,, dirty and cleansed before being used...	29,147	32,462
,, Inspections and reinspections of Trucks ...	50,550	56,021
,, found clean	43,448	47,977
,, found dirty and cleansed before being used...	7,102	7,574
,, ,, leaving the City before being cleansed,	347	470
,, Inspections and reinspections of Horse Boxes	1,306	1,581
,, found clean	977	1,287
,, ,, dirty and cleansed before being used	297	265
,, ,, ,, not ,, ,, ,, ,,	32	29
,, Inspections and reinspections of Vessels ...	5,452	5,481
,, found clean	3,081	3,246
,, ,, dirty and cleansed before being used	2,342	2,164
,, ,, going to Sea before being cleansed, without cattle or cargo	29	71
,, Inspections and reinspections of Gangways...	4,761	5,753
,, found clean	2,554	3,456
,, ,, dirty and cleansed before being used...	2,207	2,297
,, Inspections and reinspections of Lairages and Sale Yards	6,124	7,616
,, found clean	3,622	5,108
,, ,, dirty and cleansed before being used...	2,502	2,508

	1909.	1910.
Number Carts used to convey Pigs, inspections and re-inspections	1,979	1,751
,, found clean	1,972	1,728
,, dirty and cleansed before being used.. ...	7	23
,, of visits to Manure yards and wharves ...	666	823

INSPECTION OF SLAUGHTER-HOUSES, &c.	1909.	1910.
Number of Visits to Slaughter-houses made by Meat Inspectors	6,436	6,260
Number of Visits to Butchers' Shops made by Meat Inspectors	63,483	71,115
Number of Visits to Fish and Fruit Shops made by Fish Inspectors	58,345	55,239
Number of Visits to Fruit Shops made by Fruit Inspector	20,916	25,538

FOOD HAWKERS' PREMISES.

	1909.	1910.
Number of Visits made by District Sanitary Inspectors...	1,119	1,521

FISH PLATFORMS.

Number of Visits made by District Sanitary Inspectors...	28	43

POULTRY DEPOTS.

Number of Visits made by District Sanitary Inspectors...	467	597

INSPECTION OF MEAT, FISH, FRUIT AND GENERAL FOOD STUFFS.

The methods adopted have been explained in the Report for 1909.

RETURNS OF ANIMALS KILLED IN THE CITY SLAUGHTER-HOUSES, AND OF MEAT IMPORTED FOR SALE.

The number of fat cattle from local dairies slaughtered in the City during 1910 was 2,253, as compared with 1,578 in 1909.

The small number of cattle slaughtered in the City is probably due to the importation of States cattle, and also to the importation of frozen meat, chiefly from the River Plate district.

There is a decrease in the number of sheep slaughtered, and an increase in the number imported, as compared with the year 1909.

With regard to pigs, it will be noticed that there is a decrease in the number killed in the City.

STREET.	Beasts.	Sheep.	Lambs.	Calves.	Pigs.	Dead Meat Imported for Sale.			
						Beasts.	Sheep.	Calves.	Boxes of Offal.
Abattoir.	6414	237474	—	19178	25145	47269	362516	602	20160
Allerton Road, Wavertree ...	473	4320	225	27	99	...	...	...	...
Back Castle Street	732	14	...	29	...	...	...	...	...
Back Commutation Row.....	...	...	...	...	...	...	...	...	...
Back Mount Vernon Green...	224	1683	733	4	6	...	...	...	...
Bevington Hill	...	...	...	...	...	...	...	...	...
Brecon Street.....	91	432	106	2	...	...	...	...	...
Copperas Hill.....	...	...	...	...	5398	...	...	...	...
Corlett Street.....	5	1661	960	1	1	...	...	...	...
Cotter Street	...	...	...	...	...	...	...	...	...
Carried forward	1525	8110	2024	63	5504	47269	362516	602	20160

RETURNS OF ANIMALS KILLED IN THE CITY SLAUGHTER HOUSES AND OF MEAT IMPORTED FOR SALE—*Continued.*

STREET.	Beasts.	Sheep.	Lambs.	Calves.	Pigs.	Dead Meat Imported for Sale.			
						Beasts.	Sheep.	Calves.	Boxes of Offal.
Brought forward	1525	8110	2024	63	5504	47269	362516	602	20160
Derby Lane, Old Swan.....	...	544	230	...	...	...	...	...	...
Edgeware Street	80	226	33	...	...	...	...	...	...
Foley Street	...	...	...	...	3603	...	...	...	...
Frederick Street.....	1	1867	143	4	408	...	...	...	...
101, High Street, Wavertree..	...	...	...	...	...	...	...	...	...
105, High Street, Wavertree.	73	32	...	3	18	...	...	...	..
Norman Street	...	...	...	...	1247	...	...	...	. .
Peel Street	...	447	153	...	5	...	...	...	..
Prescot Road, Knotty Ash ...	8	557	192	15	24	...	...	...	...
Sandown Lane, Wavertree ...	...	124	56	...	2	...	...	...	...
Sidwell Street, Garston	83	32	...	5	132	...	...	...	...
Soho Street.....	...	...	...	...	3765	...	...	...	...
St. Mary's Road, Garston ...	24	6	...	1	14	...	...	...	...
Upper Milk Street.....	...	...	...	...	5651	...	...	...	...
West Derby Road, Tue Brook	130	1207	456	2	135	...	...	...	...
Total in Private Slaughter-houses	1924	13152	3287	93	20508	...	...	...	...
Total in the City	8338	250626	3287	19271	45653	47269	362516	602	20160

PRECEDING YEAR.

Total in Private Slaughter-houses	2057	16379	2077	766	21856	...	...	...	...
Total in the City	5965	255860	2077	19347	51760	48131	356136	2079	5622

MEAT, FISH AND FRUIT, &c., FOUND TO BE UNFIT FOR HUMAN FOOD.

The following table shows the amount of unsound food which was either seized or surrendered during the year, and which was destroyed :—

	Tons.	Cwts.	Qrs.	Lbs.
Beef	81	16	0	27
Veal	4	4	1	5
Mutton and Lamb	10	16	0	20
Pork	9	18	0	16
Venison	—	14	1	7
Total Meat ...	107	9	0	19

Fish	73	10 0 22
Fruit	116	0 1 5
Preserved Pears	16,320	tins.
Poultry	2,537	head.
Rabbits and Hares ...	3,719	,,
Mussels, Winkles, and Cockles	197	bags.
Oysters	14,500	

This does not include fish removed as refuse by Officers of the Cleansing and Scavenging Department under the City Engineer.

The great bulk of this material was not exposed for sale, and did not require a Justices' order for its destruction.

The quantity of fish condemned includes both fresh fish and salt fish which had become tainted during transit or storage.

ANIMALS SMOTHERED AND INJURED IN TRANSIT ON BOARD SHIP.

Beasts.	Sheep.	Pigs.	Number found good.	Number found bad.	Weight of bad. lbs.
14	30	67	82	29	4,996

CARCASES OF DISEASED OR INJURED ANIMALS SURRENDERED OR SEIZED.

The following table shows the number of carcases surrendered to, or seized by, the Medical Officer of Health and Inspectors:—

	1909.	1910.
Cattle	265	229
Calves	155	135
Sheep	570	419
Pigs	174	123
Goats	17	27
Totals	1,181	933

The following table shows the result of the examination of above carcases of diseased or injured animals:—

	Beasts.	Calves.	Sheep.	Pigs.	Goats.	Total.
Emaciation	24	31	144	12	24	235
Putrefaction	12	28	118	10	2	170
Immaturity	...	41	...	...	...	41
Suffocation	1	7	59	16	...	83
Tuberculosis	130	2	...	54	...	186
Dropsy	18	5	63	17	1	104
Inflammation	39	19	...	10	...	68
Necrosis	...	...	...	1	...	1
Pneumonia	...	...	...	2	...	2
Enteritis	2	...	...	...	...	2
Jaundice	...	1	...	1	...	2
Anthrax	2	...	...	...	...	2
Diseased Navel	...	1	...	...	...	1
Damaged	1	...	35	...	...	36
Total	229	135	419	123	27	933

*Number of such carcases condemned by Justices under Section 117 of the Public Health Act, 1875.

1909	8
1910	9

The number of carcases condemned in 1909 in consequence of the animal having suffered from Tuberculosis was as follows:—

Cattle	147
Calves	1
Pigs	77
Total...	225

Of the 130 Tuberculous beasts condemned, 47 came from local cow-sheds, 5 from the Isle of Man, 42 from Ireland, 17 from Preston, 3 from Yorkshire, 4 from Cheshire, 3 from Wales, and 9 from other places.

Of the 54 Pigs, 16 came from local piggeries, 20 from Ireland, 2 from Stafford, 3 from Preston, 13 from Wales.

	1909.	1910.
Number of informations in respect of diseased poultry ...	—	—
,, ,, ,, ,, meat ...	4	6
,, ,, ,, unsound fruit ...	—	—
,, ,, ,, ,, fish ...	—	1
Total number of Informations	4	7
Number Fined	1	1
,, Sent to Prison	—	—
,, Withdrawn or Dismissed	3	6
Amount of Fines and Costs	£1 4 6	£21 5 0

* The remainder were dealt with under a Local Act, which does not require Justices' Order.

RETURN OF THE NUMBERS OF CATTLE, SHEEP AND SWINE EXPORTED FROM IRELAND TO LIVERPOOL DURING THE YEAR 1910, SHOWING THE PORTS IN IRELAND AT WHICH THE ANIMALS WERE SHIPPED.

	Cattle.	Sheep.	Swine.
Ballina	14	4,878	427
Belfast	6,447	11,029	540
Cork	27,955	17,171	9,071
Drogheda	32,498	50,322	5,001
Dublin	108,133	224,391	29,832
Dundalk	28,107	36,701	19,271
Londonderry	4,687	13,186	299
Newry	6,964	7,414	1,004
Sligo	98	9,264	12,278
Warrenpoint	69	—	—
Waterford	18,180	39,532	9,437
Westport	399	15,173	7,350
Wexford	1,317	19,270	3,027
Total	235,168	448,331	97,537

SHOWING THE TOTAL NUMBERS OF THE SEVERAL KINDS OF CATTLE, SHEEP AND SWINE EXPORTED FROM IRELAND TO LIVERPOOL, DURING THE YEAR 1910.

CATTLE.	No.
Fat	110,753
Stores (for fattening)	85,708
Milch Cows ...	22,103
Springers ...	6,451
Other Cattle ...	3,207
Calves	6,946
Total Cattle ...	235,168

SHEEP.	No.
Fat	205,371
Stores	1,524
Lambs	241,436
Total Sheep ...	448,331

SWINE.	
Fat	90,229
Stores	7,308
Total Swine ...	97,537

GLANDERS AND FARCY.

The Health Committee have made regulations under the Diseases of Animals Act and the Glanders and Farcy Orders of 1896 and 1907 which have been circulated amongst the horse-owners in the city. Accompanying these regulations were notices indicating the means of combating the disease and the necessary precautions to be taken.

The following table indicates the number of affected animals during the last four years. It will be noted that in 1910 the city was again entirely free from the disease.

Year.	No. of Cases.
1907	1
1908	—
1909	1
1910	—

Immediate notification of actual or suspected cases of Glanders is received either from the owner, police, or the Veterinary Surgeon who may be called in to the case, or from the Horse Slaughterer's yard (there is only one in the city).

In further reference to Glanders and Farcy, it may be mentioned that the Veterinary Superintendent has caused the lungs of all horses sent to the Knacker's yard to be submitted to examination, and it is by these inspections that unreported cases can be discovered.

This precaution is also taken to ensure owners being immediately notified of the existence of the disease, which may be in a latent state,

and to protect the public from unscrupulous persons who may not conform to the requirements of the act.

Lungs Examined.	Glandered.	Not Affected.
1,972	—	1,972

In addition to the above examination of lungs, the various sale-yards throughout the city were visited and 4,260 horses examined, none of which were found to be affected with any infectious disease.

EXAMINATION OF CATTLE AND SHEEP.

At the Liverpool Cattle Market during 1910, the following animals were inspected by Veterinary Surgeons of the Corporation:—

Cattle	45,829
Sheep	360,134
Calves	—
Other Animals	—

No cases of infectious disease were found.

LIVERPOOL PARASITIC MANGE ORDER, 1908.

Under this Order Veterinary examinations are made of all animals suspected of being affected with Parasitic Mange, and in the case of affected animals they are immediately isolated and kept under observation until the disease has entirely disappeared. Thorough disinfection of the premises, harness, utensils, feeding troughs, &c., is carried out under the supervision of Inspectors of the Medical Officer of Health.

The following table gives the number of examinations made and animals affected, &c. :—

Number of Animals and Carcases examined.	Affected.	Died or Slaughtered.	Recovered.
384	87	20	67

ANTHRAX.

There were nine cases of anthrax in animals reported during the year. In eight of the cases the carcases were found in cowsheds, and one in a slaughterhouse. In this latter case the owner was fined £2 10s. 6d., including costs, for failing to notify the existence of the disease, and causing the carcase to be carried along the highway.

A portion of the carcase was in each case submitted to Professor Sir Rubert Boyce, who certified that the animals from which they were taken were affected with anthrax.

The cowsheds where cases occurred were immediately cleansed and disinfected, all the manure burned, and samples of foodstuffs were in each case submitted for bacteriological examination, with the result that no Anthrax bacilli were found present.

SWINE FEVER ORDER.

With a view to facilitate the trade in the import of pigs from Ireland, and in order to fulfil the obligations of the Board of Agriculture, certain premises have been scheduled by the Health Committee to which pigs may be licensed, viz. :—

Stanley Cattle Market; pens at South end of the East side of the Nelson Dock; pens at East side of the Collingwood Dock; pens at South-west side of the Collingwood Dock; pens at South end of Prince's Pierhead.

The exigencies of the import trade appear to be met by this arrangement, the pigs being re-licensed after sorting at the places named. Objection to the arrangement was raised on the grounds that these premises were used for market purposes. An investigation was made into the matter, but it was found desirable, on the whole, that the arrangement should continue.

PIGGERIES.

There were 12 applications made during the year for licenses to keep pigs, of which five were transfers. Of the remaning seven which were new applications involving 53 pigs, six were granted and one refused. Two hundred and ninety visits were paid to piggeries during the year.

RABIES.

In conformity with the requirements of the Board of Agriculture, reports were sent to the Board in respect of four suspected cases of rabies. Bacteriological examination was made in each of the cases, and *post mortem* examinations were made by the Veterinary Inspectors. There were no signs that any of the animals had been affected with rabies.

DAIRIES, COWSHEDS AND MILKSHOPS.

There is no change in the method of procedure respecting the licensing of cowsheds and the registration of dairies, milkshops and milkstores.

STATISTICS RESPECTING COWSHEDS.

	1910.
Number of applications to keep cows on premises not previously licensed	4
,, ,, granted	4
,, cows applied for on above applications	48
,, ,, granted	48
,, applications for transfer to fresh tenants of cowsheds previously licensed	35
,, ,, granted	35
,, ,, to keep more cows than the number for which the license was originally granted	3
,, ,, granted	3
,, additional cows applied for	12
,, ,, granted	12
,, Cowsheds on the register 31st December, 1909 ...	466
,, ,, ,, ,, ,, 1910 ...	447
Number of cows licensed to be kept within the city area	6,691

COWSHED INSPECTION.

	1909.	1910.
Number of Inspections of Cowsheds	4,190	4,297
,, found Incorrect	88	65
,, of Informations	4	2
,, ,, ,, Withdrawn ...	4	2
Amount of Fines and Costs	£0 12 6	£0 0 0

Ninety-one notices have been issued to occupiers directing their attention to contraventions of the regulations.

Number of cowsheds in the city during the years 1901 to 1910 inclusive, together with the number of cows licensed to be kept, and the number of applications for new cowsheds:—

Years.	Cowsheds.	Cows.	Applications.	
1901	443	5,909	6	
1902	442	6,068	16	Incorporation of Garston
1903	447	6,214	12	
1904	449	6,359	7	
1905	456	6,426	17	Incorporation of Fazakerley
1906	466	6,666	7	
1907	462	6,734	11	
1908	466	6,768	3	
1909	466	6,778	2	
1910	447	6,691	4	

MILKSHOPS.

	1910.
Number of Applications for registration	*145
,, ,, granted	135
,, ,, withdrawn	9
,, ,, refused	1
Number of Milkshops on the register at the end of 1906	826
,, ,, ,, ,, 1907	846
,, ,, ,, ,, 1908	814
,, ,, ,, ,, 1909	834
,, ,, ,, ,, 1910	821

DAIRIES AND MILKSHOPS INSPECTION.

	1909.	1910.
Number of Inspections of Dairies and Milkshops	7,421	7,504
,, found incorrect	121	63
,, of Informations	8	4
,, Fined	7	3
,, Withdrawn	1	1
Amount of Fines and Costs	£8 1 6	£1 11 0

Eighty-two caution notices have been issued to occupiers of milkshops, and twenty notices were sent to farmers for contraventions of the Regulations.

* One hundred and two of these applications were transfers.

LEAVELOOKERS' VISITS TO COWSHEDS FOR THE PURPOSE OF EXAMINING COWS.

No. of Visits.	No. of Examinations of Cows.	No. found Healthy.	No. found ill.	No. referred to the Veterinary Surgeon.
1,747	21,534	21,401	133	133

ICE CREAM MAKERS AND VENDORS.

The usual inspections have been made of the premises utilised by the street traders solely for manufacturing ice cream.

The dwellings which these street traders occupy have also been kept under observation, and in no instance during the past year has it been found that ice cream has been made or stored in or about these dwellings.

A systematic inspection has also been made of shopkeepers' premises which are used for the manufacture and sale of ice cream.

	1909.	1910.
Number of premises under Inspection	897	839
,, visits made	2,668	2,547
,, caution notices issued	20	32
,, Informations	—	—

TUBERCULOSIS AND THE MILK SUPPLY.

LIVERPOOL CORPORATION ACT, 1900.

The number of actual or suspected cases of tuberculosis in cattle which have been found by the Inspectors in the city cowsheds has now dwindled to a very low figure, showing that by a thorough examination and constant supervision this disease amongst cattle may be successfully combated.

The examination of cows and cowsheds within the city has been duly carried out throughout the year, and all cases of sickness amongst the cattle are reported by the Leave-lookers. In cases where the cows are reported to be suffering from any disease of the udder, or any other disease likely to be inimical to the public health, the Medical Officer of Health directs that the animal be submitted to Veterinary examination and reported upon. Should clinical symptoms of tuberculosis of the udder be in evidence, the cow is either removed from the cowshed for slaughter or kept strictly isolated pending a definite conclusion of the case.

The following is a table showing the number of visits which it was necessary for the Veterinary Inspectors to make to cowsheds within the city boundary.

Year.	No. of Visits to Town Cowsheds.	No. of Cases notified by Owners.	No notice given.	No. of Cows examined.	No. of Cows not affected.	No. of Cows Suspicious of Tuber-culosis of the Udder.	No. of Convictions for Offences under the Act.
1901	40	—	—	59	32	27	—
1902	12	—	—	13	7	6	1
1903	61	27	34	121	97	24	7
1904	305	168	137	665	595	70	12
1905	239	176	63	298	241	57	1
1906	198	172	26	225	211	14	—
1907	188	137	51	238	235	3	—
1908	171	121	50	255	252	3	—
1909	177	114	63	203	200	3	—
1910	144	103	41	189	188	1	—
Totals..	1535	1018	465	2266	2058	208	21

MILK SUPPLIED FROM OUTSIDE THE CITY BOUNDARIES.

Under the Liverpool Corporation Act, 1900, Inspectors systematically visit various places supplied with milk from the country, including the railway stations and hospitals, and there take samples. These samples are then submitted to bacteriological examination. Should they be found to contain tubercle bacilli (the germs of consumption), the Veterinary Superintendent or his Assistant, accompanied by the Medical Officer of Health or his representative, and furnished with an Order signed by a magistrate resident within the county from which the milk is consigned (as prescribed by the Act), visits the farm or dairy and examines the stock therein. The cowsheds from which the affected supplies have been derived during the last ten years are situated in the counties included in the following tables:—

NUMBER OF FARMS FROM WHICH MILK WAS FOUND TO BE AFFECTED WITH TUBERCLE.

Year.	Cheshire.	Shropshire.	Denbighshire.	Lancashire.	Flintshire.	Staffordshire.	Derbyshire.
	Affected Farms.	Affected Farms.	Affected Farms.	Affected Farms.	Affected Farms.	Affected Farms.	Affected Farms.
1901...	10	1	1	—	—	—	—
1902...	11	2	2	—	1	1	—
1903...	7	3	1	1	—	—	—
1904...	7	6	1	—	1	1	1
1905...	7	—	1	1	—	—	—
1906...	7	2	2	2	1	—	—
1907...	6	1	2	—	—	1	—
1908...	2	1	1	1	—	—	—
1909...	4	2	—	—	—	—	—
1910...	4	4	—	—	1	—	—
Totals	65	22	11	5	4	3	1

TABLE SHOWING THE VARIOUS COUNTIES FROM WHICH MILK HAS BEEN SENT INTO THE CITY FROM JANUARY, 1901, TO DECEMBER, 1910, TOGETHER WITH OTHER STATISTICAL DETAILS OF WORK DONE UNDER THE LIVERPOOL CORPORATION ACT, 1900.

A—Samples direct from suspected Cows.
B—Samples of mixed Milk taken at various places within the City.
C—Combined Totals.

Year.	Cheshire.						Shropshire.						Denbighshire.						Lancashire.						Flintshire.						Staffordshire.						Yorkshire.						Other Counties.					
	Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.			Total Number of Samples Examined.			Found to be Tubercular.		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1901.....	10	206	216	2	13	15	3	42	45	—	2	2	2	6	8	—	2	2	—	29	29	—	—	—	—	10	10	—	1	1	—	2	2	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—
1902.....	18	247	265	2	13	15	4	52	56	—	5	5	6	14	20	3	5	8	—	27	27	—	—	—	1	6	7	1	—	1	1	4	5	—	3	3	—	2	2	—	—	—	—	—	—	—	—	—
1903.....	4	194	198	1	10	11	3	60	63	—	6	6	—	23	23	—	1	1	1	44	45	—	1	1	—	11	11	—	—	—	—	10	10	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
1904.....	5	203	208	1	12	13	6	58	64	1	9	10	3	27	30	2	8	10	—	27	27	—	—	—	—	25	25	—	1	1	—	2	2	—	2	2	—	2	2	—	—	—	2	10	12	—	1	1
1905.....	10	205	215	1	8	9	—	44	44	—	—	—	—	44	44	—	3	3	—	31	31	—	2	2	—	6	6	—	—	—	—	3	3	—	—	—	—	3	3	—	—	—	—	2	2	—	—	—
1906.....	4	165	169	1	12	13	3	47	50	—	4	4	3	28	31	—	1	1	2	34	36	—	2	2	2	16	18	—	1	1	—	1	1	—	1	1	—	6	6	—	—	—	—	10	10	—	—	—
1907.....	4	142	146	1	7	8	—	39	39	—	—	—	—	20	20	1	4	5	—	21	21	—	—	—	—	16	16	—	1	1	—	4	4	—	—	—	—	2	2	—	—	—	—	9	9	—	—	—
1908.....	3	203	206	1	4	5	1	48	49	—	4	4	1	5	6	—	—	—	—	2	2	—	1	1	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6	—	—	—
1909.....	5	213	218	1	5	6	3	48	51	3	1	4	—	37	37	—	—	—	—	15	15	—	—	—	—	10	10	—	—	—	—	—	—	—	—	—	—	3	3	—	—	—	—	7	7	—	—	—
1910.....	3	190	193	2	6	8	1	69	70	—	6	6	—	19	19	—	—	—	—	22	22	—	—	—	1	12	13	—	1	1	—	4	4	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—
Totals ...	66	1968	2034	13	90	103	24	507	531	4	37	41	15	223	238	6	24	30	3	252	255	—	6	6	4	115	119	1	5	6	1	30	31	—	6	6	—	18	18	—	—	—	2	49	51	—	1	1

The cows housed in the City cowsheds yield approximately 17,000 gallons per day; the daily consumption of milk amounts to 34,000 gallons, or over seven ounces per head per day of the population.

The quantity of milk sent into the City from the different counties included in the foregoing table also amounts to about 17,000 gallons per day: of this quantity upwards of 60 per cent. comes from Cheshire. It may be mentioned that over 100,000 cows are in milk within the county of Cheshire, which is the largest dairy district in the United Kingdom.

The country cowsheds generally are found to be much inferior (from a sanitary point of view) to those within the City of Liverpool, and although, owing to the passing of the Liverpool Act, they have been greatly improved, there are many which are in a most unsatisfactory condition. In a number of cases farmers have expressed their approval of the beneficial results of the inspections made by the Liverpool Authorities owing to the consequent improvements made in the premises by the landlords.

The cattle also are neither so good, nor are they kept in the same cleanly condition, as those of the city.

The accompanying photographs illustrate town and country cowsheds.

When tuberculosis of the udder is suspected the necessary proceedings are taken as prescribed by the Act. They are similar in principle to those adopted within the city. Samples of milk are also taken from suspected animals, and submitted to a further bacteriological test to verify the diagnosis of the case. In the meantime the animals are isolated, and the milk dealt with as in the city.

It is not possible in all cases to find evidence of disease of the udder in the herd, the explanation usually being that the animals have been sold during the time which elapses between the taking of the sample in Liverpool and the visit of the Corporation officials to the farm.

Affected animals are usually disposed of for slaughter, but, it is to be regretted they are occasionally found to have been sold as milking cows, and, as a natural consequence, upon going into other herds would be likely to further disseminate the disease.

The following table gives statistical details concerning visits to farms outside the city boundary:—

Year.	No. of Farms Visited.	No. of Re-Visits to Farms.	Total No. of Visits to Farms.	No. of Cowsheds Examined.	No. of Cows Examined.	No. of Cows Suspicious of Tuberculosis of the Udder.	No. of Convictions for Offences under the Act.	No. of Orders Prohibiting the Sale of Contaminated Milk within the City.
1901	12	6	18	40	351	20	1	4
1902	17	5	22	66	760	18	3	3
1903	13	2	15	32	364	10	3	2
1904	17	1	18	39	604	19	1	5
1905	9	1	10	20	266	9	4	1
1906	14	—	14	25	391	10	6	1
1907	12	1	13	31	462	7	1	1
1908	11	1	12	31	568	5	3	1
1909	12	8	20	76	1153	6	—	—
1910	13	5	18	60	871	4	1	2
Totals ...	130	30	160	420	5790	108	23	17

Local Authorities in Rural Districts are often negligent in regard to the supervision of cowsheds. In every district, Bye-laws should be made and enforced in accordance with the Parliamentary powers given with this object.



INTERIOR VIEW OF A BADLY LIGHTED COUNTRY COWSHED FROM WHICH TUBERCULAR MILK WAS SENT TO LIVERPOOL.



EXTERIOR VIEW OF A COUNTRY COWSHED.
Shewing absence of lighting and proper means of ventilation.



ANOTHER VIEW AT THE SAME FARM.

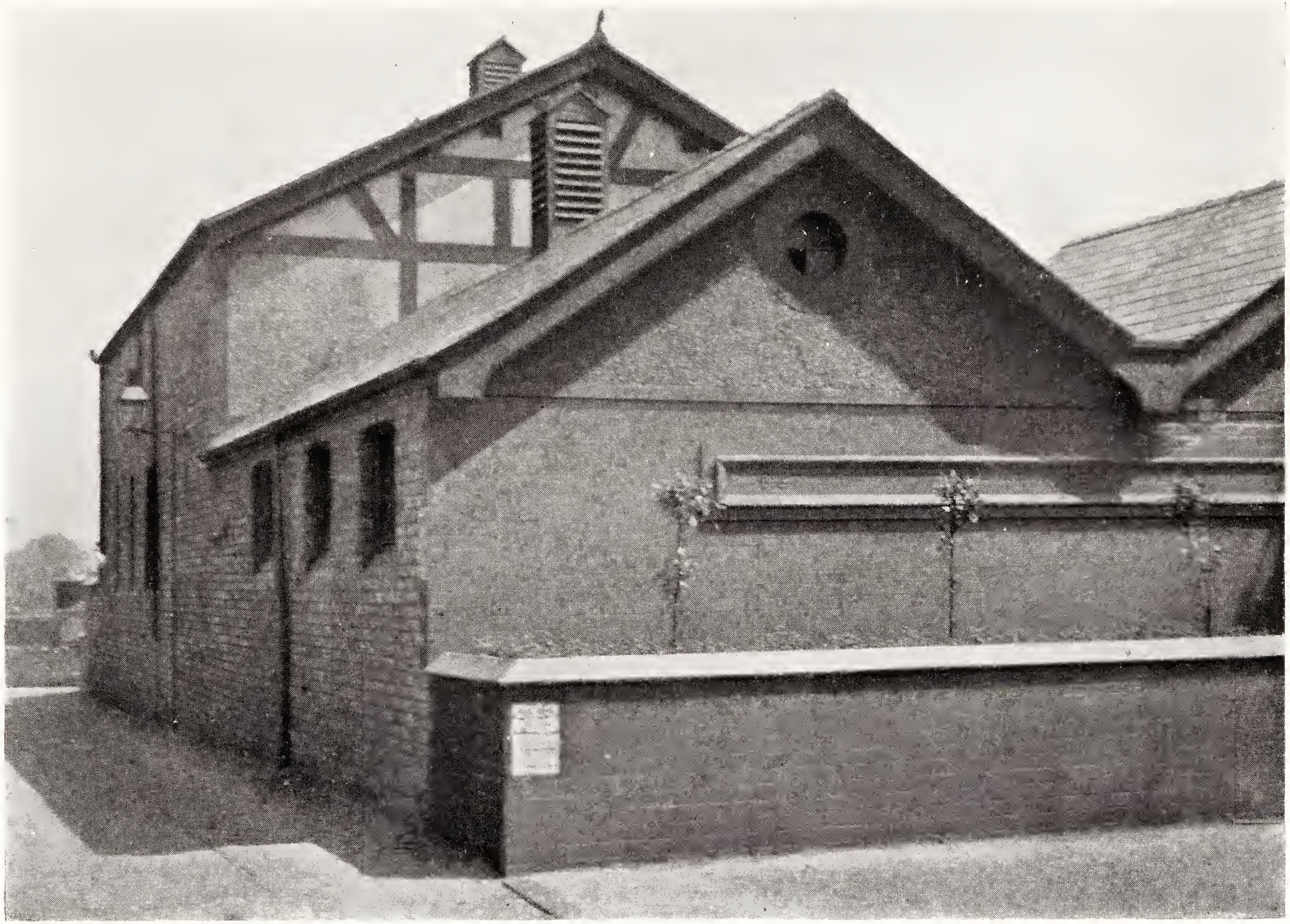
Shewing accumulation of manure, and defective condition of yard surface.



INTERIOR VIEW OF A TOWN COWSHED.



INTERIOR VIEW OF A TOWN COWSHED.



EXTERIOR VIEW OF A TOWN COWSHED.

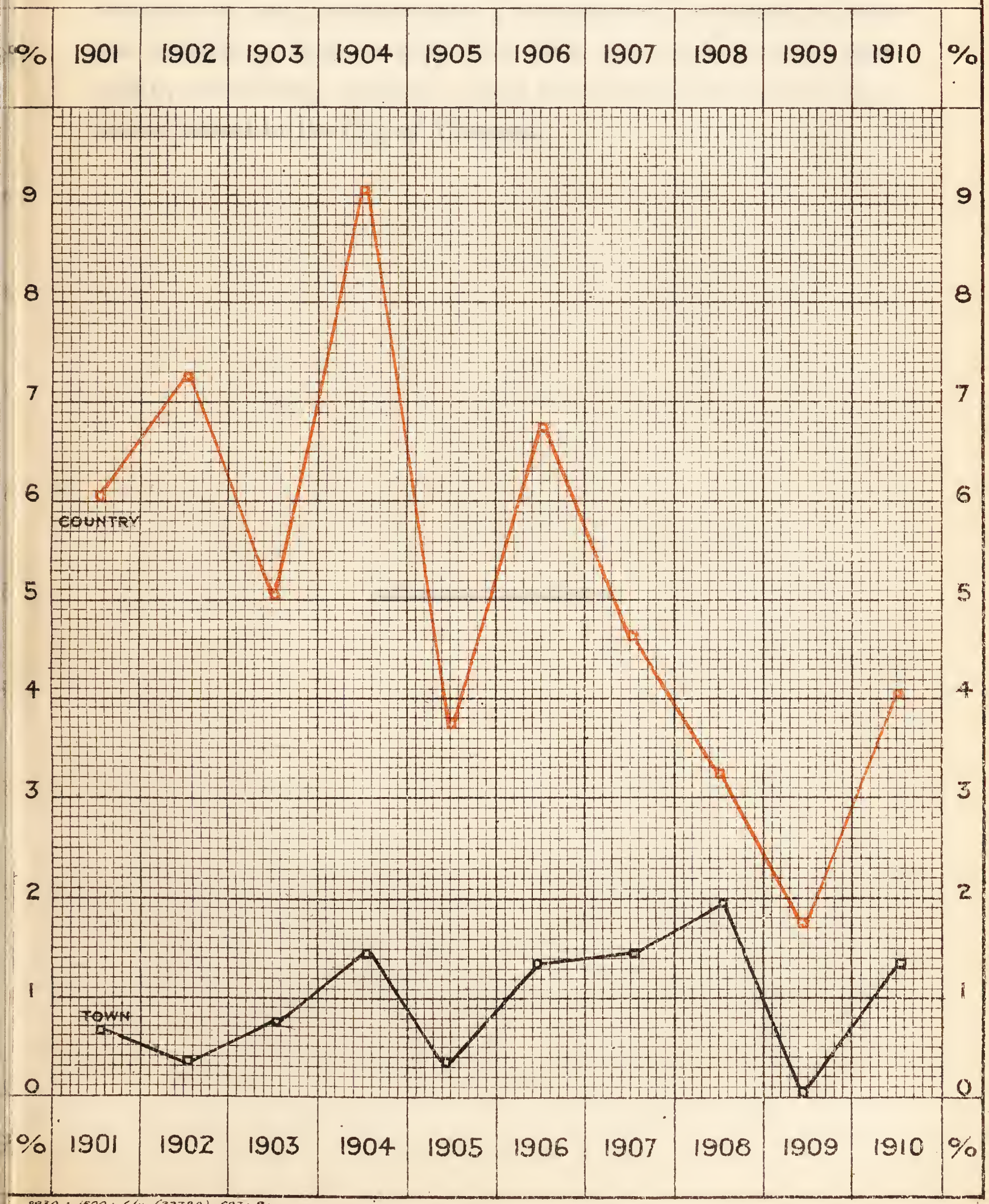
CITY OF LIVERPOOL.

Percentage of Samples of

TOWN (BLACK) & COUNTRY (RED) MILK

found to be TUBERCULAR

during each of the last TEN YEARS



8930 · 1500 · 6/11 (22798) 697 · R ·



Although the application of the Act involves a considerable amount of time and expense on the part of the Liverpool Corporation and its officials, the result is that the city is protected to a great extent from the evils which follow an impure milk supply. The Local Authorities of many surrounding districts have also become alive to the necessity of insisting upon better sanitation of farms and cowsheds, and the farmers themselves in many instances show a willingness to be advised as to the best methods to adopt to keep their cattle and cowsheds in the most healthy and sanitary condition, so that the benefits of the Act are by no means limited to the City of Liverpool.

MILK DEPÔTS.

The diminution in the high rate of infant mortality attributable to improper feeding justifies the continuation of depôts at which a preparation of pure cows' milk is made to resemble human milk as closely as possible. This preparation is intended for the use of infants whose mothers are unable to suckle them, and who, but for it, would receive altogether unsuitable and deleterious food.

Great pains are taken to see that the milk is properly used; careful instructions are given, and the infants are visited either at their homes or are seen at the Depôts.

Since the initiation of the scheme in 1901, 18,331 infants have been fed upon humanised milk supplied either at the Milk Depôts or through dairies, the average age at the commencement of such feeding being three months and three-quarters; very few (1,380) were, from one cause or another, admitted after twelve months of age.

The expenditure and income of the Depôts since their establishment is shown on the appended table.

The subject has been fully dealt with in the Report for 1909.

The problem of finding a complete substitute for the milk of a healthy mother has not been solved, and probably never will be. As the infant grows there may no doubt be variation in the quality of mother's milk which specially adapt it to the infant's need, niceties in nature which cannot be approached artificially, but when artificial feeding becomes necessary, it is obviously important that the best possible substitute for mothers' milk should be available.

It is the polluted cows' milk and the unsuitable artificial foods which cause the mischief, and as it is impossible by Municipal administration to reach and deal with all the sources of pollution, the justification for the present undertaking arises. The Municipality has spared no efforts to ensure a pure milk-supply.

The infants fed on humanised sterilized milk have been supplied during the year as follows:—

Netherfield Road Depôt	.....	3,222
Earle Road Do.	.....	2,491
Park Road Do.	.....	2,516
Cazneau Street Do.	.....	2,760
Boaler Street Do.	.....	621
Hornby Street Do.	.....	290
Total supplied from Depôts	.....	11,900
,, supplied from Dairies	.....	6,431
		18,331

Of the 11,900 infants supplied through the Depôts, and of whom accurate records are kept, there were 1,111 cases in which the infant died, but of these 82 had been fed on the milk for less than one week, or had been irregularly fed on it; 832 were ill, some of them hopelessly ill when the milk was first supplied. Each death formed the subject of a careful inquiry, and it was found that out of the total number of infants who died only 197 were fairly healthy at the time of admission, and had been properly fed since. In these 197 cases the registered causes of death were as follows:—

Convulsions	45
Diarrhœa	32
Bronchitis	19
Pneumonia	26
Wasting	5
Teething	8
Inflammation of Stomach	6
Whooping Cough	9
Blood Poisoning	2
Effect of operation on throat	2
Croup	1
Meningitis	3
Various other causes	39
	197

Out of the 11,900 infants coming promiscuously to the depôts, at varied ages and in conditions of health below the average, the mortality was 93 per 1,000, as against 147 per 1,000 for the whole City, and 83 to 102 for the best districts and 225 to 250 for the worst, for the five years 1906 to 1910.

But it must be remembered that in the rate for the whole City, and for the best and worst districts, are included also breast-fed infants; clearly if breast-fed infants were excluded and artificially-fed infants only taken into account, the rate of mortality amongst them would be enormously higher, and would show even more forcibly the advantages of the sterilized food, which, of course, is an artificial food, over other methods of artificial feeding.

Expenditure and Income for the 10 years 1901 to 1910.

	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Wages and Clothing	277 11 9	856 4 3	1,093 9 9	1,112 4 7	1,102 2 1	1,091 12 0	1,122 13 7	1,155 9 5	1,263 15 2	1,316 8 5
Rents	79 5 6	141 18 1	128 4 1	143 9 2	151 16 3	170 2 3	176 8 3	164 0 1	178 5 0	176 6 0
Rates and Taxes Water Rent	20 13 4	46 15 6	65 9 0	55 19 5	63 19 11	64 17 8	64 13 1	68 8 10	67 11 1	67 19 3
Lighting	39 10 4	100 17 7	79 16 6	66 16 4	84 0 11	67 11 5	62 0 5	65 17 9	74 2 2	89 8 3
Fuel	3 12 0	18 6 10	30 8 7	33 2 4	31 4 11	27 6 6	33 2 8	34 7 5	41 6 0	40 10 4
Printing and Stationery	1 19 0	6 2 4	19 11 1	14 1 5	14 18 10	6 17 11	4 13 7	5 16 3	3 8 8	10 1 0
Advertising	...	...	...	...	13 9 4	...	...	...	...	...
Disbursements	7 3 6	12 18 9	12 13 6	14 1 6	21 7 6	34 16 8	35 17 9	36 8 8	43 6 5	40 14 7
Cleaning Premises, Windows, &c.	3 10 0	10 10 0	29 0 10	14 0 0	...	17 0 0	20 7 6	29 10 6	31 10 10	36 0 2
Travelling and Inspection Expenses	2 16 2	...	27 12 4	...	...	...	...	...	...	1 0 7
Stores (Milk, &c.)	303 19 10	1,427 2 10	1,604 12 1	1,527 13 8	1,449 11 1	1,148 6 11	1,198 16 6	1,230 8 2	1,714 11 6	1,949 11 10
Telephone Rent	3 8 0	6 16 0	13 16 10	13 12 0	13 12 0	13 12 0	13 12 0	13 12 0	14 2 0	13 12 0
Furniture, Fittings & Repairs	333 8 3	84 16 5	9 9 11	7 7 6	43 15 8	15 13 10	24 2 8	36 17 6	48 7 0	134 8 9
Machinery	215 18 1	673 14 1	120 0 10	42 11 5	6 5 10	9 2 1	5 7 0	3 4 10	...	...
Bottles, Stoppers, &c.	425 19 0	459 16 8	645 9 0	255 9 1	351 1 9	252 6 8	266 15 2	265 10 6	295 9 4	375 8 4
Building Repairs, Alterations, &c.	275 12 0	278 8 5	74 0 10	29 16 5	43 6 4	41 3 8	22 14 4	21 0 10	46 10 7	66 10 5
Horsing Vans, and Hire of Float	5 12 0	179 16 0	267 13 3	300 6 11	238 3 5	242 7 3	263 2 5	250 9 2	252 8 8	161 9 8
Electric Light Installation	...	27 16 7	10 5 9	...	...	...	...	...	...	...
Insurance	...	2 18 7	2 9 3	2 16 3	2 16 3	2 16 3	2 16 3	2 11 0	2 11 0	2 11 0
Medical Attendance— Scalding Case	...	...	25 0 0	0 10 6	...	...	...	...	...	...
	1,999 18 9	4,334 18 11	4,259 3 5	3,633 18 6	3,631 12 1	3,205 13 1	3,317 3 2	3,383 12 11	4,077 5 5	4,482 0 7
Sale of Milk	518 0 2	1,534 13 7	2,230 11 1	1,676 0 6	1,644 7 9	1,250 5 7	1,196 16 7	1,154 13 4	1,328 13 3	1,554 4 6

SALE OF FOOD AND DRUGS ACT.

The Sale of Food and Drugs Act, and its various amendments, are designed to safeguard the honest trader from fraudulent competition, and to safeguard the public from fraud, imposition and danger, in regard to food and drugs.

Great care is necessary in procuring samples, and in submitting them for analysis, or very misleading results will ensue. All samples of food or drugs are taken either by, or under the superintendence of, Inspectors of the Health Department. It is of the greatest consequence that trained and practised persons should be employed for this purpose, and it is necessary from time to time to employ women or young people as agents, to go into the shop to ask for the articles, and as soon as the agent receives them, the Inspector enters the shop and completes the formalities which the Act requires.

Only a few purchases are made of those articles which, experience shows, are not likely to be adulterated. On the other hand, when enterprising firms, seeking new fields for adulteration and profit, place suspicious articles on the market, it becomes necessary, sometimes, to take a considerable number of the articles before the fraud can be detected and checked.

Any member of the public is entitled, under the Act, to have samples analysed upon payment to the analyst of a fee of 10s. 6d.

Summary of Samples submitted for Analysis from January 1st, 1910, to December 31st, 1910, and other Statistical Details.

A. Refers to samples which were found to be adulterated or below statutory limits to a material extent.

B. Refers to trivial or doubtful cases.

Informal Samples.				Nature of Sample.	Formal Samples.					
Number taken.	Number genuine.	Adulterated. Schedule A.	Adulterated. Schedule B.		Number taken.	Number genuine.	Adulterated. Schedule A.	Adulterated. Schedule B.	Vendors caut'nd	Informations.
1	—	1	—	Ammoniated Tincture of Quinine	2	1	1	—	—	1
1	1	—	—	Arrowroot...	2	2	—	—	—	—
—	—	—	—	Baking Powder	8	8	—	—	—	—
—	—	—	—	Barley	8	8	—	—	—	—
14	14	—	—	Beer and Stout	95	94	—	1	—	1
—	—	—	—	Bicarbonate of Soda	3	3	—	—	—	—
—	—	—	—	Black Pudding	1	1	—	—	—	—
1	—	1	—	Boar's Head	—	—	—	—	—	—
3	3	—	—	Brandy	6	5	1	—	—	1
—	—	—	—	Brawn	3	3	—	—	—	—
27	27	—	—	Bread	—	—	—	—	—	—
1	1	—	—	Bread and Butter	7	5	2	—	2	—
251	226	22	3	Butter	61	51	9	1	3	6

SUMMARY OF SAMPLES, &c.—*Continued.*

Informal Samples.				Nature of Sample.	Formal Samples.					
Number taken.	Number genuine.	Adulterated.			Number taken.	Number genuine.	Adulterated.		Vendors caut'nd	Informations.
		Schedule A.	Schedule B.				Schedule A.	Schedule B.		
—	—	—	—	Buttermilk	1	1	—	—	—	—
2	2	—	—	Camphorated Oil	—	—	—	—	—	—
4	4	—	—	Castor Oil	—	—	—	—	—	—
—	—	—	—	Cayenne Pepper	3	3	—	—	—	—
5	4	1	—	Cheese	10	8	2	—	—	2
2	1	—	1	Cider	4	3	—	1	—	—
—	—	—	—	Cinnamon	3	3	—	—	—	—
9	9	—	—	Cocoa	17	17	—	—	—	—
5	5	—	—	Cocoa Mixtures	—	—	—	—	—	—
5	5	—	—	Cod Liver Oil	—	—	—	—	—	—
3	3	—	—	Coffee	29	28	1	—	—	—
—	—	—	—	Coffee and Chicory	2	2	—	—	—	—
7	7	—	—	Condensed Milk	4	4	—	—	—	—
48	48	—	—	Confectionery	9	9	—	—	—	—

Informal Samples.				Nature of Sample.	Formal Samples.					
Number taken.	Number genuine.	Adulterated. Schedule A.	Adulterated. Schedule B.		Number taken.	Number genuine.	Adulterated. Schedule A.	Adulterated. Schedule B.	Vendors caut'nd	Infor-mations.
2	2	—	—	Cornflour	2	2	—	—	—	—
1	1	—	—	Cream	13	8	3	2	3	—
—	—	—	—	Cream of Tartar	6	5	—	1	—	—
—	—	—	—	Dripping	3	3	—	—	—	—
—	—	—	—	Epsom Salts	2	2	—	—	—	—
1	1	—	—	Extract of Malt and Cod Liver Oil	—	—	—	—	—	—
1	1	—	—	Fish	—	—	—	—	—	—
10	10	—	—	Flavouring Essences	—	—	—	—	—	—
53	53	—	—	Flour	12	12	—	—	—	—
7	7	—	—	Flour, Self-raising	6	6	—	—	—	—
2	2	—	—	Gin	9	9	—	—	—	—
—	—	—	—	Ginger	14	14	—	—	—	—
5	5	—	—	Glycerine	—	—	—	—	—	—

Informal Samples.				Nature of Sample.	Formal Samples.					
Number taken.	Number genuine.	Adulterated. Schedule A.	Adulterated. Schedule B.		Number taken.	Number genuine.	Adulterated. Schedule A.	Adulterated. Schedule B.	Vendors caut'nd	Infor-mations.
—	—	—	—	Ground Almonds...	3	3	—	—	—	—
—	—	—	—	Ground Mace	4	4	—	—	—	—
—	—	—	—	Ground Nutmegs	1	1	—	—	—	—
1	1	—	—	Ground Pimento	—	—	—	—	—	—
3	2	—	1	Honey	—	—	—	—	—	—
5	4	—	1	Jams, Marmalade, and Jellies	31	31	—	—	—	—
5	5	—	—	Lard	27	27	—	—	—	—
—	—	—	—	Lard Substitutes	7	5	2	—	—	2
2	2	—	—	Margarine	29	27	1	1	1	—
9	9	—	—	Margarine Fats	—	—	—	—	—	—
1	1	—	—	Meat Pies	—	—	—	—	—	—
6	5	1	—	Medicine (Prescription)	1	1	—	—	—	—
2	2	—	—	Milk	929	751	94	84	26	52

Informal Samples.				Nature of Sample.	Formal Samples.					
Number taken.	Number genuine.	Adulterated. Schedule A.	Adulterated. Schedule B.		Number taken.	Number genuine.	Adulterated. Schedule A.	Adulterated. Schedule B.	Vendors caut'nd	Infor-mations.
—	—	—	—	Mixed Spice	12	12	—	—	—	—
—	—	—	—	Mustard	3	3	—	—	—	—
—	—	—	—	Oatmeal	1	1	—	—	—	—
3	3	—	—	Olive Oil	3	3	—	—	—	—
1	1	—	—	Pepper	22	22	—	—	—	—
16	16	—	—	Pickles and Sauce	—	—	—	—	—	—
—	—	—	—	Potted Meat	1	1	—	—	—	—
—	—	—	—	Potted Shrimps	1	—	—	1	—	—
3	3	—	—	Preserved Fruit and Vegetables	1	—	1	—	1	—
6	4	2	—	Proprietary Foods	4	2	2	—	2	—
—	—	—	—	Rice	20	19	—	1	—	—
4	4	—	—	Rum	9	8	—	1	—	—
—	—	—	—	Sausages	5	5	—	—	—	—

SUMMARY OF SAMPLES, &c.—*Continued.*

Informal Samples.				Nature of Sample.	Formal Samples.					
Number taken.	Number genuine.	Adulterated.			Number taken.	Number genuine.	Adulterated.		Vendors caut'nd	Informations.
		Schedule A.	Schedule B.				Schedule A.	Schedule B.		
—	—	—	—	Seidlitz Powders	1	1	—	—	—	—
2	2	—	—	Sugar	3	3	—	—	—	—
10	10	—	—	Syrup and Treacle	1	1	—	—	—	—
—	—	—	—	Tapioca	3	3	—	—	—	—
—	—	—	—	Tartaric Acid	3	3	—	—	—	—
10	10	—	—	Tea	31	31	—	—	—	—
21	18	3	—	Temperance Beverages and Materials ...	40	23	9	8	4	8
26	20	3	3	Tinned Fruit and Vegetables	2	—	2	—	1	—
1	1	—	—	Tinned Herrings	—	—	—	—	—	—
4	4	—	—	Tinned Herrings and Tomato Sauce	—	—	—	—	—	—
4	4	—	—	Tinned Lobster	—	—	—	—	—	—
4	4	—	—	Tinned Meat	1	—	1	—	1	—
10	10	—	—	Tinned Salmon	—	—	—	—	—	—

SUMMARY OF SAMPLES, &c.—*Continued.*

Informal Samples.				Nature of Sample.	Formal Samples.					
Number taken.	Number genuine.	Adulterated. Schedule A.	Adulterated. Schedule B.		Number taken.	Number genuine.	Adulterated. Schedule A.	Adulterated. Schedule B.	Vendors caut'nd	Informations.
4	4	—	—	Tinned Sardines	—	—	—	—	—	—
1	—	1	—	Vegetable Stearine	—	—	—	—	—	—
2	2	—	—	Vinegar	8	7	1	—	—	1
9	9	—	—	Whiskey	26	25	1	—	—	1
4	4	—	—	Wines	21	21	—	—	—	—
—	—	—	—	Yeast	4	4	—	—	—	—
650	606	35	9		1603	1368	133	102	44	75
738	696	24	18		1598	1417	88	93	29	60

The figures for 1909 were.....

Summary of Samples in which legal proceedings were instituted during the year January 1st, 1910, to December 31st, 1910, together with result.

No. of Informations.	Nature of Samples.	Nature of Offence.	Result of Legal Proceedings.				
			No. of Convictions.	No. withdrawn on paym'nt of costs.	No. dismiss'd and withdrawn without costs.	Fines.	Costs.
29	Milk	Deficient in cream	14	14	1	£ s. d. 17 10 0	£ s. d. 23 11 0
3	,,	Deficient in cream and adulterated with water	2	1	—	5 0 0	2 9 0
1	,,	Deficient in cream and artificially coloured	—	1	—	—	0 15 0
17	,,	Adulterated with water	13	4	—	50 0 0	16 15 0
2	,,	Adulterated with Formaldehyde	1	1	—	2 0 0	1 14 0
1	Gorgonzola Cheese	Adulterated with Sulphate of Barium and foreign fat.	—	1	—	—	0 15 0
1	Cheese	Adulterated with fat not derived from milk	—	—	1	—	—
1	,,	For issuing a false warranty in writing *re* sample of cheese adulterated with fat not derived from milk.	1	—	—	10 0 0	3 14 6
3	Butter	Adulterated with foreign fat	2	1	—	20 0 0	2 14 0
2	,,	Adulterated with boracic acid	—	1	1	—	0 17 0
1	,,	Contained an excessive quantity of water	—	—	1	—	—

SUMMARY OF SAMPLES IN WHICH LEGAL PROCEEDINGS WERE INSTITUTED—*Continued.*

No. of Informations.	Nature of Samples.	Nature of Offences.	No. of Convictions.	Result of Legal Proceedings.			
				No. withdrawn on paym'nt of costs.	No. dismiss'd and withdrawn without costs.	Fines.	Costs.
4	Butter	For issuing a false warranty in writing *re* samples of butter containing an excessive quantity of water (3) adulterated with boracic acid.	1	--	3	£ s. d. 10 0 0	£ s. d. 9 11 0
1	Brandy	$9\frac{1}{2}$ degrees below statutory limit	—	—	1	—	—
1	Beer	Contained $\frac{1}{250}$ grain of lead and $\frac{1}{400}$ grain of copper per pint	—	1	—	—	0 15 0
3	Barm Beer	Contained fraction of a grain of lead per pint	—	3	—	—	2 9 0
2	Sarsaparilla	,, ,, ,, ...	—	2	—	—	1 12 0
1	Hop and Dandelion Beer	,, ,, ,, ...	—	1	—	—	0 17 0
1	Lime Juice Cordial ...	Contained $3\frac{1}{2}$ grains salicylic acid and $2\frac{1}{2}$ grains of sulphurous acid gas per pint	—	—	1	—	—
1	Lime Juice	Contained $3\frac{1}{2}$ grains salicylic acid and $1\frac{1}{2}$ grains of sulphurous acid gas per pint	—	—	1	—	—
2	Lardine	Adulterated with water	2	—	–	2 10 0	1 14 0

SUMMARY OF SAMPLES IN WHICH LEGAL PROCEEDINGS WERE INSTITUTED.—*continued.*

No. of Informations.	Nature of Samples.	Nature of Offences.	Result of Legal Proceedings.				
			No. of Convictions.	No. withdrawn on paym'nt of costs.	No. dismiss'd and withdrawn without costs	Fines.	Costs.
						£ s. d.	£ s. d.
1	Scotch Whiskey	Adulterated with water, being 9 degrees below statutory limit	—	1	—	—	0 17 0
1	Vinegar	Adulterated with 60 % of vinegar not derived from malt	1	—	—	1 0 0	0 17 0
1	Ammoniated Tincture of Quinine	Deficient in Quinine sulphate	—	1	—	—	0 15 0
80			37	33	10	£118 0 0	£72 11 6
For the year 1909 the figures were..... 60			41	15	4	£128 16 0	£57 14 6

DETAILS OF SAMPLES OF MILK OBTAINED FOR CHEMICAL ANALYSIS.

	1909.	1910
Number of Samples purchased on Week-days in Town..	294	294
,, Informations	24	30
,, Samples taken at Railway Stations on Week-days...	249	245
,, Informations	3	7
,, Samples purchased on Sundays in Town ...	157	157
,, Informations	17	13
,, Samples taken at Railway Stations on Sundays	129	128
,, Informations	—	2
,, Samples taken at City Hospitals	75	74
,, Informations	—	—
,, Samples taken at Corporation Milk Depôts...	25	33
,, Informations	—	—

MARGARINE ACT.

	1909.	1910.
Number of Visits to Wholesale Dealers in Margarine ...	809	795
,, Visits to Shops	7036	6886
,, Informations	—	—
,, Fined	—	—
Amount of Fines and Costs ...	Nil.	Nil.

SPECIAL EXAMINATIONS.

The following samples were submitted during 1910 for special examination:—

Nature of Sample	No. of Samples.	Nature of Sample.	No. of Samples.
Barm Beer	1	Mud	1
Condensed Milk	4	Oatmeal Stout	1
Effluent	1	Prepared Flour	1
Indian Red	1	Sewage	2
Methylated Spirits	2	Water	2

FERTILISERS AND FEEDING STUFFS ACT, 1906.

On 1st January, 1907, a Fertilisers and Feeding Stuffs Act, which replaced the old Act of 1893, came into operation.

Under it the City Analyst was appointed official agricultural analyst, and the three inspectors under the Sale of Food and Drugs Act were appointed official samplers.

A certain remuneration was agreed to in respect of the work done under the Act.

The following table shows the number of samples procured during the year:—

Nature of Sample.	No. of Samples.	Nature of Sample.	No. of Samples.
American Decorticated Cotton Cake Meal	1	Ground Oats	1
Canadian Linseed Meal ...	1	Indian Meal.....	1
Dairy Cake Meal.....	2	Linseed Cake Meal	1
Egyptian Undecorticated Cotton Cake	1	Malted Dairy Meal.....	1
Fattening Cake	1	Oil Cake	1
Fertilizers	2	Pea Meal	2
Ground Oil Cake.....	2	Soya Cake Meal	1
		Total.....	18

POISONS AND PHARMACY ACT, 1908.

The Poisons and Pharmacy Act, 1908, came into operation on the 1st April, 1909.

The object of the Act is to regulate the sale of certain poisonous substances, and to amend the Pharmacy Acts. It is fully referred to in the Annual Report for 1909.

During the year 16 licenses were granted under this Act.

BACTERIOLOGICAL EXAMINATIONS AND ANALYSES.

The Bacteriological Analyses comprise :—

1. The Examination of food-stuffs of various kinds.

2. The daily and monthly examination of the water supplied to the City.

3. The examination of suspected cases of rabies, anthrax, tuberculosis, &c

4. The examination of rats taken on shipboard and in the town for the presence or absence of plague.

5. The examination for diagnostic purposes in suspected cases of diphtheria, typhoid fever, sputum and suspected cases of plague.

The total number of food-stuffs examined bacteriologically during 1910 was 1,225, a detailed list of which follows :—

SUMMARY OF FOOD-STUFFS.

Sample.	No.	Sample.	No.
Black Puddings	4	Meat Extract	5
Bread	1	,, Pies	31
Butter	74	,, Potted	18
Cheese	22	,, Tinned	29
Cockles	21	Minced Meat	2
Cray Fish	1	Mussels	24
Cream	18	Oysters	23
Cream Cheese	8	Pasteurised Milk	19
Condensed Milk	45	Pickles	2
Fish Paste	25	Periwinkles	11
,, Potted	13	Polony	2
,, Tinned	61	Sauce	19
Fruits, Preserved	17	Sausages	14
Honey	2	Soups	2
Ice Cream	6	Syrup and Treacle	6
Jam	7	Water	1
Jelly	21	Whelks	2
Lemon Cheese	12	Milks	612
Margarine	31		
Marmalade	7		
Meat cooked	7	Total	1,225

SUMMARY OF ALL EXAMINATIONS 1910.

Examination of Foodstuffs	1,225
,, *Waters	490
,, Typhoid	193
,, Diphtheria	1
,, Rats	2,137
,, Miscellaneous	101
Total	4,147

In addition to the above-mentioned, a very large number of bacteriological examinations were made during the year 1910 of suspected tubercular, typhoid and diphtheria cases for the Medical Practitioners of the City and surrounding districts, the total number of such examinations amounting to 699.

* These water examinations were specially carried out for the Water Committee of the City, and details of the analyses will be found in Water Engineer's Report for 1910

MILK ANALYSES FOR THE YEAR.

612 Milks were examined for the presence of—

1. The *Bacillus tuberculosis*.
2. The *Colon bacillus*.
3. The *Bacillus enteritidis sporogenes*, or allied forms.
4. Other bacteria.

The *Bacillus tuberculosis* indicates that the animals from which the milk was taken were tubercular, or that the pails into which the milk was received or the hands of the milker were infected from previous contact with a diseased cow or person.

The *Colon bacillus* indicates contamination with dirt of an intestinal origin, or that the cow was suffering from inflammation of the udder.

The *Bacillus enteritidis sporogenes* indicates dust or intestinal contamination.

The term "negative" indicates that the inoculated guinea pigs died before the test for tubercle had had time to be completed.

Presence of the Bacillus Tuberculosis.

Of the 612 samples examined for tubercle, 74 guinea pigs died before the test for tubercle was completed; 19 of the milk samples were not inoculated and are included under those returned negative, guinea pigs at this particular period were exceedingly difficult to obtain.

Of the 538 remaining samples 19 proved tubercular, of which 15 were railway borne milks, and 4 town.

As has been pointed out in previous years, it is a very serious matter that tubercle is so widespread in milk, when it is remembered that one tubercular cow may be the means of infecting the milking utensils, the hands of the milker, and, in consequence, even the teats of the other healthy animals. Regulations dealing with infected animals cannot, therefore, be too stringent.

Table showing the number of samples of milk examined Bacteriologically for Tubercle Bacilli from 1896 to 31st December, 1910.

Year.	Total Number of Samples Taken.	Town Samples.		Country Samples.	
		No. taken.	Tubercular.	No. taken.	Tubercular.
1896	119	83	4	36	5
1897	150	63	4	87	5
1898	112	84	7	28	5
1899	352	167	1	185	15
1900	560	255	4	305	5
1901	566	254	2	312	20
1902	595	213	1	382	32
1903	582	231	2	351	19
1904	571	201	4	370	37
1905	560	212	1	348	14
1906	530	209	3	321	22
1907	451	194	4	257	14
1908	528	256	5	272	10
1909	600	259	4	341	10
1910	612	289	4	323	15
Totals.....	6,888	2,970	50	1,918	228

Detailed Table shewing particulars of Samples of Milk for 1910.

\+ Signifies that Bacilli are present.
— Signifies that Bacilli are absent.

	RAILWAY.							TOWN.							HOSPITAL.							STERILIZED MILK DEPOT.							Total No. per M'th.	NEGATIVE.					TUBERCULAR					
	No.	Colon Bacilli.				B. Ent. Sporog.	Total.	No.	Colon Bacilli.				B. Ent. Sporog.	Total.	No.	Colon Bacilli.				B. Ent. Sporog.	Total.	No.	Colon Bacilli.				B. Ent. Sporog.	Total.		Railway.	Town.	Hospital	Depot.	Total No.	Railway.	Town.	Hospital	Depot.	Total No.	
		c.c. 1	c.c. .1	c.c. .01	c.c. .001				c.c. 1	c.c. .1	c.c. .01	c.c. .001				c.c. 1	c.c. .1	c.c. .01	c.c. .001				c.c. 1	c.c. .1	c.c. .01	c.c. .001														
January.	2	—	—	—	—			16	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—			3	+	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—	—		2	+	—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—												
	10	+	+	+	+		12	12	+	+	+	+		33	4	+	+	+	+		4	—	—	—	—	—	—	49	1	6	—	—	7	5	1	—	—	6	January.
February.	—	—	—	—	—			10	—	—	—	—	+ in 2 cases.		—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—			—	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—	—		2	+	+	+	—			—	—	—	—	—	—		—	—	—	—	—	—												
	22	+	+	+	+		22	9	+	+	+	+		21	5	+	+	+	+		5	—	—	—	—	—	—	48	—	1	—	—	1	1	1	—	—	2	February.
March.	—	—	—	—	—			4	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—			12	—	—	—	—	+ in 2 cases		—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—	—		3	+	+	—	—			—	—	—	—	—	—		—	—	—	—	—	—												
	2	+	+	+	—			1	+	+	+	—			—	—	—	—	—			—	—	—	—	—													
	20	+	+	+	+		22	4	+	+	+	+		26	6	+	+	+	+		6	9	+	+	+	+	—	9	63	—	1	—	—	1	1	—	—	—	1	March.
April.	—	—	—	—	—			8	—	—	—	—			4	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—			3	+	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—	—		3	+	+	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—												
	—	—	—	—	—			1	+	+	+	—			—	—	—	—	—			—	—	—	—	—													
	15	+	+	+	+		15	—	—	—	—	—		19	4	+	+	+	+		8	—	—	—	—	—	—	42	—	8*	—	—	8*	—	—	2	—	2	April.
May.	2	—	—	—	—			15	—	—	—	—	+ in 4 cases.		—	—	—	—	—			—	—	—	—	—													
	—	+	—	—	—			1	+	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	+	+	—	—			—	—	—	—	—			—	—	—	—	—	—		—	—	—	—	—	—												
	—	—	—	—	—	—		—	—	—	—	—			—	—	—	—	—			—	—	—	—	—	—												
	17	+	+	+	+		22	10	+	+	+	+		26	7	+	+	+	+		7	—	—	—	—	—	—	55	2	—	—	—	2	—	—	—	—	—	May.
June.	—	—	—	—	—			22	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—			3	+	—	—	—			—	—	—	—	—			2	+	—	—	—													
	3	+	+	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—												
	3	+	+	+	—			—	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	5	+	+	+	+		11	9	+	+	+	+		34	9	+	+	+	+		9	4	+	+	+	+	—	6	60	—	—	—	—	—	—	—	—	1	1	June.
July.	—	—	—	—	—			8	—	—	—	—			2	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—			1	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—												
	—	—	—	—	—			—	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	10	+	+	+	+		10	10	+	+	+	+		18	1	+	+	+	+		3	—	—	—	—	—	—	31	2	—	—	—	2	—	—	—	—	—	July.
August.	1	—	—	—	—			13	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—			—	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—	+ in 1 case.		—	—	—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—												
	—	—	—	—	—			—	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	19	+	+	+	+		21	10	+	+	+	+		23	4	+	+	+	+		4	4	+	+	+	+		4	52	—	8	—	1	9	—	—	1	—	1	August.
September.	—	—	—	—	—			13	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—			1	+	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—												
	—	—	—	—	—			1	+	+	+	—			—	—	—	—	—			—	—	—	—	—													
	21	+	+	+	+		21	10	+	+	+	+		25	6	+	+	+	+		6	3	+	+	+	+	—	3	55	11*	—	—	—	11*	—	—	—	—	—	September.
October.	—	—	—	—	—			10	—	—	—	—			—	—	—	—	—			—	—	—	—	—													
	2	+	—	—	—	+ in 1 case.		—	—	—	—	—	+ in 1 case.		—	—	—	—	—	—		—	—	—	—	—													
	—	—	—	—	—			1	+	+	+	—			—	—	—	—	—			—	—	—	—	—													
	7	+	+	+	+		10	9	+	+	+	+		20	7	+	+	+	+		7	—	—	—	—	—	—	37	2	11	—	—	13	—	1	1	—	2	October.
November.	—	—	—	—	—			11	—	—	—	—			1	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—			—	—	—	—	—			—	—	—	—	—	—		—	—	—	—	—	—												
	2	+	+	—	—	—		1	+	+	—	—			—	—	—	—	—	—		—	—	—	—	—	—												
	—	+	+	+	—			1	+	+	+	—			1	+	+	+	—			—	—	—	—	—													
	19	+	+	+	+		22	12	+	+	+	+		25	4	+	+	+	+		6	—	—	—	—	—	—	53	1	4	1	—	6	1	1	—	—	2	November.
December.	—	—	—	—	—			12	—	—	—	—			1	—	—	—	—			—	—	—	—	—													
	10	+	—	—	—			4	+	—	—	—			—	—	—	—	—			—	—	—	—	—													
	—	—	—	—	—	—		2	+	+	—	—			1	+	+	—	—	—		—	—	—	—	—	—												
	3	+	+	+	—			—	—	—	—	—			2	+	+	+	—			—	—	—	—	—													
	16	+	+	+	+		29	1	+	+	+	+		19	4	+	+	+	+		8	11	+	+	+	+	—	11	67	9	4	—	1	14	2	—	—	—	2	December.
Ttl.							217							289							73							33	612	28	43	1	2	74	10	4	4	1	19	Ttl.

* These figures include the Milks which were not inoculated.

TABLE SHOWING (A) SAMPLES OF MILK DRAWN DIRECT FROM SEPARATE COWS, (B) SAMPLES OF MIXED MILK, TOGETHER WITH OTHER PARTICULARS RELATING TO SAMPLES OF MILK TAKEN FOR BACTERIOLOGICAL EXAMINATION FROM JANUARY 1ST, 1901, TO DECEMBER 31ST, 1910.

YEAR.	TOWN.						COUNTRY.						Total number of Samples taken during the Year.
	Samples.			Tubercular.			Samples.			Tubercular.			
	A Direct fromCows, taken in routine practice.	B Mixed Milk from Town Cows.	Total.	A. Direct from Cows.	B Mixed Milk.	Total.	A Direct from Suspected Cows.	B Mixed Milk from Country Cows.	Total.	A Direct from Cows.	B Mixed Milk.	Total.	
1901	215	39	254	2	—	2	15	297	312	2	18	20	566
1902	180	33	213	1	—	1	30	352	382	6	26	32	595
1903	203	28	231	2	—	2	7	344	351	1	18	19	582
1904	163	38	201	2	2	4	16	354	370	4	33	37	571
1905	196	16	212	1	—	1	10	338	348	1	13	14	560
1906	143	66	209	3	—	3	14	307	321	1	21	22	530
1907	90	104	194	3	1	4	5	252	257	2	12	14	451
1908	141	115	256	1	4	5	5	267	272	1	9	10	528
1909	147	112	259	4	—	4	8	333	341	4	6	10	600
1910	174	115	289	1	3	4	5	318	323	2	13	15	612
Totals.....	1652	666	2318	20	10	30	115	3162	3277	24	169	193	5595

Source.	No. of Samples.	The Colon Bacillus.										B. Enteritidis Sporogenes.			
		Absent in 1 c.c.		Present in 1 c.c. but Absent in ·1 c.c.		Present in ·1 c.c. but Absent in ·01 c.c.		Present in ·01 c.c. but Absent in ·001 c.c.		Present in ·001 c.c.		Absent.		Present.	
		Times.	Per cent.	Times.	Per cent.	Times.	Per cent.	Times.	Per cent.	Times.	Per cent.	Times.	Per cent.	Times.	Per cent.
Railway borne Milks	217	5	2·3	14	6·4	6	2·7	11	5	181	83·4	215	99·1	2	·9
Town Milks	289	142	49·1	31	10·7	13	4·5	7	2·4	96	33·2	282	97.5	7	2·4
Hospital Milks	73	8	10·9	—	—	1	1·3	3	4·1	61	83·6	71	97·2	2	2·7
Sterilized Milk Depôts	33	—	—	2	6	—	—	—	—	31	94	33	—	—	—

The total number of foodstuffs examined bacteriologically up to 1910 are as follows :—

1896	122
1897	162
1898	311
1899	505
1900	1,067
1901	1,055
1902	1,097
1903	1,061
1904	1,107
1905	1,147
1906	1,075
1907	1,028
1908	1,043
1909	1,216
1910	1,225
	13,221

RESULTS OF ANALYSES OF BUTTER, CREAM, CONDENSED MILK, CHEESE, MEAT PIES, TINNED FISH, TINNED MEATS and SHELL FISH.

Butter.—74 samples were submitted for analysis and the colon Bacillus was present on 27 occasions, B. Enteritidis Sporogenes being absent.

Cream.—18 samples of cream were examined, and colon was found to be present on all occasions. One sample also showed the presence of the tubercle bacillus as a result of a special inoculation test.

Condensed Milk.—45 samples of condensed milk were investigated, two of which proved to be sterile. In all other cases a very large number of bacteria were found. This shows what a very unsatisfactory product condensed milk really is, since the milk which was originally condensed might have contained various products of decomposition of bacteria. These products are subsequently masked by the large quantity of sugar employed in the process of condensing, but which does not destroy their irritant properties.

Cheese.—22 samples of cheese were analysed, the colon bacillus being present on 19 occasions; the B. Enteritidis Sporogenes being absent. Also in the case of the eight samples of cream cheese analysed, the colon bacillus was found to be present in every sample.

Meat Pies.—As heretofore, a large number of meat pies were submitted for examination, and the colon bacillus were found to be present in the majority of cases; one sample also contained the B. Enteritidis Sporogenes.

Fish (Tinned).—Of the 61 samples of tinned fish examined, it is interesting to observe that the majority were found to be sterile.

Sausages.—14 samples were analysed, and the presence of the colon bacillus was demonstrated in each case; the B. enteritidis sporogenes was, however, not found.

Shell Fish.—As in previous years a large number of shell fish were submitted for examination, and evidence of contamination was found in most samples. It must be remembered that shell fish are for the

most part eaten uncooked, and they are therefore liable to convey infection if they become contaminated with pathogenic bacteria. Contamination may occur in the transit and in the storing of fish, but more especially in the collecting ground. It is therefore extremely important that great attention should be paid to articles of diet of this kind.

	Number examined.	Colon Bacillus in	B. enteritidis sporogenes in
Cockles	21	20	10
Oysters	23	23	13
Mussels	24	21	9
Periwinkles	11	11	9
Whelks	2	2	2

The total number of shell fish examined was 81.

Plague Observations and Rats.—A careful watch has, as heretofore, been maintained over the rats in the ships entering the port, and over those found in the warehouses and in various parts of the town. By the systematic examination of these rats we may be put into a position to forestall cases of plague. No plague-infected rats were found.

The total number of rats examined during the year are:—

Town	507
Port	1,630
Total	2,137

City Hospitals.

During the year the following specimens have been submitted for examination:—

Cases of Diphtheria	1
,, Typhoid	193
Miscellaneous	1
Total	195

DIPHTHERIA.

Negative	1	
	——	1

TYPHOID.

Positive	87	
Negative	84	
Indefinite	22	
	——	193

MISCELLANEOUS.

Case of Meningitis	1	

ANTHRAX.

The following specimens were examined for Anthrax:—

Nature of Specimen.	Total Number.	B. Anthracis.	
		Present in.	Absent in.
Bean Oil	1	—	1
Bones	6	—	6
Cake	1	—	1
Canvas Bag	2	—	2
Ears	11	5	6
Hair	3	1	2
Hay	12	—	12
Meal	20	—	20
Oats	2	—	2
Sacking	3	—	3
Skin	3	2	1
Spleen	2	2	—
Wool	22	4	18
Total	88	14	74

MISCELLANEOUS SAMPLES.

Nature of Sample.	Total Number.	Result of Examination.
Beef and Dripping.....	1	Beef contained B.coli. also organism of B.Gaertner type.
Beef Skirt	1	Apparently normal.
Calf Lung	1	Tubercular.
Cows' Udders	2	,,
Salmon, Tinned	1	Not Sterile.
Sausage	1	Insufficient spicing has caused souring.
Sheep's fat	1	Showed fat necrosis.
Total.....	8	

RABIES.

Four dogs' heads were sent for examination, but in no instance was any evidence of rabies found.

SUMMARY OF SPECIAL EXAMINATIONS.

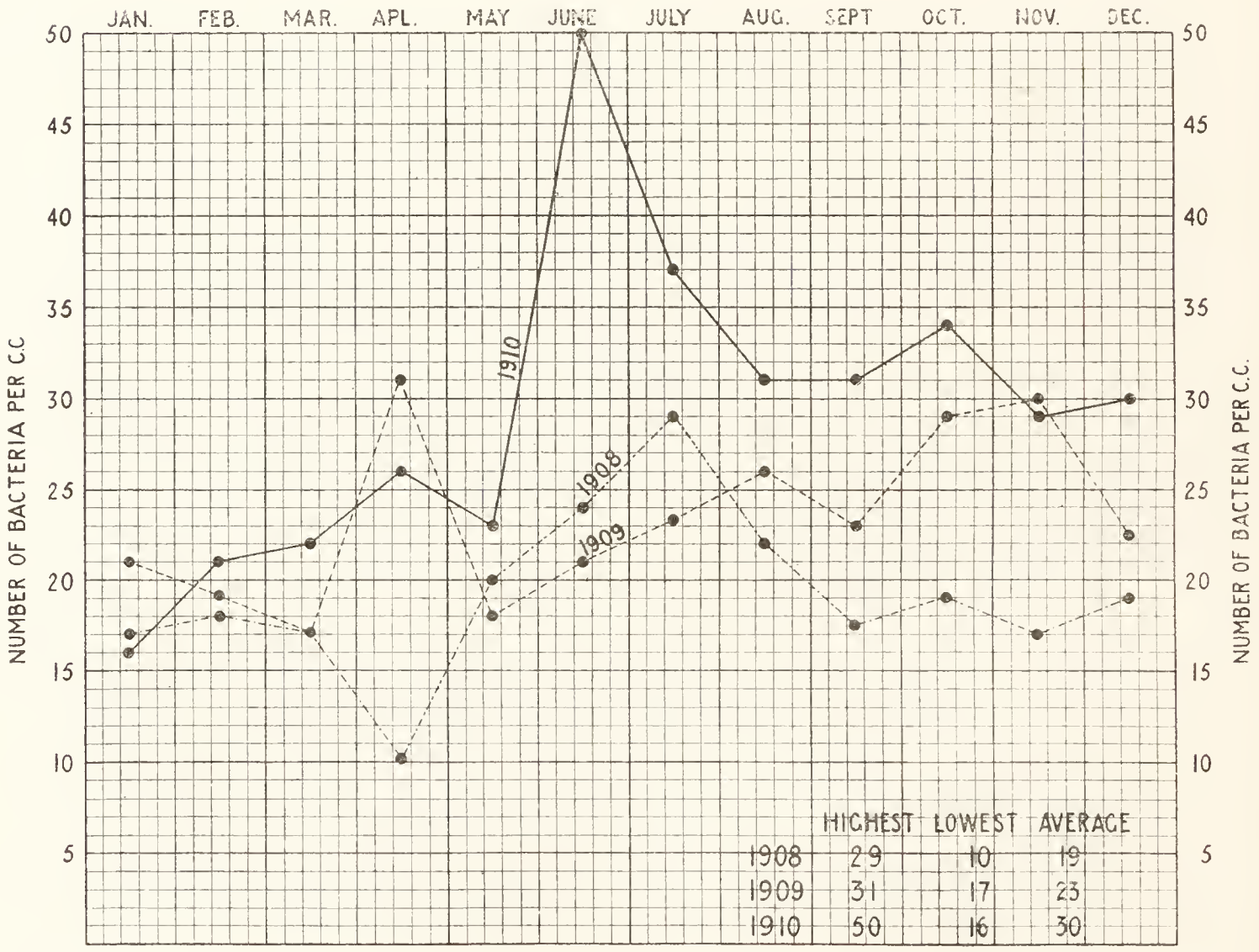
Anthrax	88
Miscellaneous	8
Rabies	4
Total	100

WATER ANALYSES.

The quality of the water supplied to Liverpool, as indicated by the daily examinations, show that its great bacterial purity has been well maintained for the year 1910, the average number of bacteria being 26, the B. enteritidis sporogenes being absent in all cases, and the colon bacillus was found from time to time in the quantity of water examined, viz., 10 c.c. to 50 c.c.

The following diagram illustrates the variation in the total number of bacteria per month during the years 1908, 1909, and 1910:—

DIAGRAM ILLUSTRATING MONTHLY AVERAGE VARIATION IN THE TOTAL NUMBER OF BACTERIA IN LIVERPOOL MAIN WATER.



CLEANSING AND SCAVENGING.

CLEANSING AND SCAVENGING.

The washing of streets, courts, back passages, &c., and the improvement in scavenging have been extended during the past year with beneficial results.

During the summer season the street washing was continued:—

238 streets were washed once a week,
202 streets ,, ,, twice a week,
60 streets ,, ,, three times a week, and
231 streets ,, ,, as occasion required,

and all passages and tunnel entrances to courts were also regularly washed.

Owing to the defective planning of many minor streets and the absence of adequate back passages some difficulties have yet to be overcome before the collection and removal of domestic refuse can be regarded as satisfactory. The concessions which have been made by the Health Committee for the substitution of sanitary ashbins for the old insanitary ashpits have resulted in a distinct sanitary advantage.

The following is a statement of the number of improved sanitary ashbins which were fixed at the 31st December, 1910:—

In properties assessed at over £10 per annum and new properties	33,718
In properties of £10 assessment and under	26,692
Total	60,410

The number of brick ashpits has been reduced from 65,000 to approximately 25,000.

Under the Bye-laws now in force, all newly-erected houses must be provided with suitable ashbins.

All private, domestic and office drains are flushed by the City Engineer's Staff twice a year, and there can be no question that a more frequent and very thorough flushing would be attended with great advantage.

The City Engineer has kindly supplied the following tables, which indicate the operations carried out by the Cleansing Staff under his control:—

TABLE No. 1.

NIGHT SERVICE

FOR EMPTYING COURT, &c., ASHPITS AND MIDDENS.

Middens have been practically abolished in the Old City, and consequently the operations of the night service are limited to the removal of domestic and office refuse from the neighbourhood of the Exchange, where it is impracticable to perform the work during business hours.

In the year 1900 an Improved Sanitary Ashbin was introduced, and 2,416 of these Bins have now been fixed for the use of Courts.

Notices Received.	Collections from Ashpits, etc.	Quantity of Ashes Collected.	Quantity of Refuse Deposited at Chisenhale Street Depot.	Average Working Staff per night.				Analysis of Work.		Average quantity removed from each Ashpit at each Collection
				Ashpit Men.	Wharf Men.	Carts.	Horses.	Loads per Man per Night.	Loads per Cart per Night.	Cart Loads.
No.	No.	Loads.	Loads.	No.	No.	No.	No.			
132	1,625	1,279	1,279	3·0	1·0	1·0	1·0	1·60	4·79	·78

TABLE No. 2.

SERVICE FOR THE COLLECTION AND REMOVAL OF DRY ASHPIT ASHES.

The number of notices received to empty ashpits during the year 1910 was 0·36 per cent. of the total collections.

The number of brick ashpits within the City is approximately 25,000.

From the year 1898 to the 31st December, 1910, Improved Sanitary Ashbins have been fixed as follows:—

In properties of over £10 assessment, and new properties	33,718
In properties of £10 assessment and under	26,692
	60,410

During this period the number of brick ashpits has been reduced from approximately 65,000 to 25,000.

In premises unsuitable for fixture bins, 33,000 loose bins have been provided.

During the year 1910 each ashpit was emptied on an average 13·85 times. The total quantity of refuse collected was 38,213 loads, or 0·11 of a load from each ashpit at each collection.

Notices Received.	Total Collections from Ashpits.	Dry Ashes.									Average Daily Working Staff.			Analysis of Work.		Average quantity removed from each Ashpit at each Collection
		Quantity of Refuse Removed.	Depots at which Refuse was Deposited.								Ashpit Men.	Carts and Wagons.	Horses.	Loads per Man per day.	Loads per Cart per Day.	
			Chisenhale Street.	Rathbone Road Destructor.	Smithdown Road Destructor.	St. Domingo Destructor.	Lavrock Bank Destructor.	Garston Destructor.	Sandhills.	Various Tips, &c.						
No.	No.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.						Loads.
1,256	346,386	38,213	7,744	3,057	5,681	6,434	3,827	2,459	1,414	7,597	109·59	28·97	24·25	1·12	4·25	·11

TABLE No. 3

SERVICE FOR THE COLLECTION AND REMOVAL OF BELL-CART AND BIN ASHES.

The Bell-cart service provides for the daily removal of domestic refuse from shops, business premises, and dwelling-houses where no provision is made for the storage of this description of refuse. This service has to be conducted within limited hours of the morning to suit the convenience of occupiers, and the exigencies of business.

Quantity of Bell-Cart and Bin Ashes Collected.	Depôts at which Refuse was Deposited.								Average Number of Carts Employed per day.	Average Quantity of Refuse Collected per day.
	Chisenhale Street.	Sandhills.	Rathbone Road Destructor.	Garston Destructor.	Smithdown Road Destructor.	Lavrock Bank Destructor.	St. Domingo Destructor.	Various Tips, &c.		
Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads,	Loads.	Loads.	No.	Loads.
97,021	26,664	799	7,994	2,450	15,046	18,439	15,944	9,685	95·02	311·97

TABLE No. 4.

SERVICE FOR FLUSHING AND CLEANSING TROUGH WATER-CLOSETS, &c.

The frequent flushing of trough water-closets is a sanitary measure, this type of closet being provided principally in the more densely-populated areas of the City.

A large number of the public urinals and trough water-closets are also cleansed and disinfected twice daily during the Summer season, and once daily during the remaining part of the year.

Underground Urinals.	Overground Urinals.	Trough Water-Closets.	Average Working Staff per day.	
			Trough W. C. Men.	Urinal Men.
No. and Stalls.	No. and Stalls.	No.	No.	No.
26—214	156—536	996	24·46	16·88

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TABLE No. 5.

SERVICE FOR THE CLEANSING OF STREETS, COURTS, AND PASSAGES, AND COLLECTION OF REFUSE.

Total Quantity of Refuse Collected.	Depôts at which Refuse was Deposited.					Average Daily Staff.				Average Number of Loads Removed Daily per Cart.
	Chisenhale Street.	Sandhills.	Wavertree.	Destructors.	Various Tips, &c.	Sweeping Machines.	Average Number of Men Employed.	Carts.	Horses.	
Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Per day.	Per day.	No.	No.	No.
65,880	24,963	9,988	6,021	4,792	20,116	5·80	464	59·65	65·45	3·23

TABLE No. 6.

CLEANSING AND REMOVAL OF REFUSE FROM STREETS, COURTS, AND PASSAGES ON SUNDAYS.

On Sunday mornings a number of the principal streets in the central parts of the City are cleansed, and, as a sanitary measure, the domestic refuse in certain districts of the City is also collected.

Street Sweepings.												
Removed.			Depôts where Deposited.								Average Daily Staff.	
			Chisenhale Street.		Sandhills.		Wavertree.		Tips.			
Saleable Refuse.	Unsaleable Refuse.	Total.	Saleable Refuse.	Unsaleable Refuse.	Saleable Refuse.	Unsaleable Refuse.	Saleable Refuse.	Unsaleable Refuse.	Saleable Refuse.	Unsaleable Refuse.	Men.	Horses.
Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	No.	No.
2,154	2,677	4,831	1,685	1,125	417	402	52	—	—	1,150	302·59	44·38

TABLE No. 7.

SERVICE FOR STREET WATERING

In connection with Street Watering approximately 38 million gallons of Water were distributed during the season, in addition to which a large quantity was used for street washing.

Number of Days on which Carts were out during year.	Quantity of Water Distributed.		Average Daily Staff employed during the Season.			Average No. of Loads distributed Daily per Cart.
	Large Loads. Day.	Small Loads. Day.	Watermen.	Motor Tank.	Carts and Horses.	
160	114,634	17,603	18·31	·57	21·43	Motor Tank ...17·71 Horse-cart ...32·59 Hand-cart ...40·00

In addition to the figures in the above table 3,843 loads of water were distributed on the drives of Sefton and Newsham Parks.

DUST LAYING.

During the season 999,251 sq. yards Carriageways were treated with Dust Laying Compositions.
Of which 88,697 ,, ,, ,, in Sefton and Newsham Parks.

TABLE No. 8.

REMOVAL OF GARBAGE FROM ABATTOIR.

Loads Removed during year.	Where Deposited.		
	Chisenhale Street.	Sandhills.	Collingwood Dock.
1,359	1,359	—	—

TABLE No. 9.

RETURN OF HORSE MANURE COLLECTED FROM FIRE STATIONS AND CORPORATION STABLES, AND DELIVERIES TO CHISENHALE STREET DEPÔT, &c.

Total Quantity dealt with during the year.	DEPÔTS AT WHICH MANURE WAS DEPOSITED.		
	Chisenhale Street.	Sandhills.	Wavertree.
Loads.	Loads.	Loads.	Loads.
2,321	1,523	458	340

Of the above 835 loads were collected from Fire Stations.

TABLE No. 10.

DESPATCHES OF MANURE AND REFUSE.

DEPÔTS.	Quantity of Saleable Refuse.				Quantity of Unsaleable Refuse.				Clinker to Works.	Grand Total.
	Street Sweepings	Mixture.	Ordinary Refuse to Farmers.	Total.	Sea.	Destructors.	Tips.	Ordinary Refuse to Farmers.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Chisenhale St., by Flats...	11,856	3,936	31,773	47,565	...	...	...	...	...	47,565
Sandhills by Rail ...	...	302	7,414	7,716	...	...	...	...	...	7,716
Wavertree do. ...	6,021	...	...	6,021	...	...	...	...	...	6,021
Chisenhale Street and Sandhills, *vid* Collingwood Dock per Barge "Beta"	...	...	...	...	20,027	...	...	...	...	20,027
Clinker per "Beta"	...	...	...	...	10,823	...	...	...	...	10,823
Charters Street Destructor.	...	...	...	...	...	57,802				
Rathbone Road ,, ...	...	...	...	...	...	12,463				
Smithdown Road ,, ...	...	...	...	...	...	27,045				
St. Domingo ,, ...	...	...	...	...	...	37,822	...	...	...	175,602
Garston ,, ...	...	...	...	...	...	7,364				
Lavrock Bank ,, ...	...	...	...	...	...	33,106				
Sundry Tips.....	...	...	2,868	2,868	...	...	32,217	11,662	...	46,747
Clinker to Tips	...	...	...	...	...	...	1,654	...	...	1,654
Ground Clinker to Works...	...	...	...	...	...	...	...	...	21,505	21,505
Rough Clinker to Works ...	...	...	...	...	...	...	...	...	14,266	14,266
	17,877	4,238	42,055	64,170	30,850	175,602	33,871	11,662	35,771	351,926

The foregoing Table shows that not less than 351,926 tons of Town's refuse have been disposed of, and this large total does not represent the actual quantity collected and carted to the Wharves, as during the Winter months a proportion of the street sweepings is in a liquefied condition, and drains away before despatch of the refuse from the Wharves.

TABLE No. 11.

HORSES.

DAILY AVERAGE NUMBER EMPLOYED ON CLEANSING WORK.

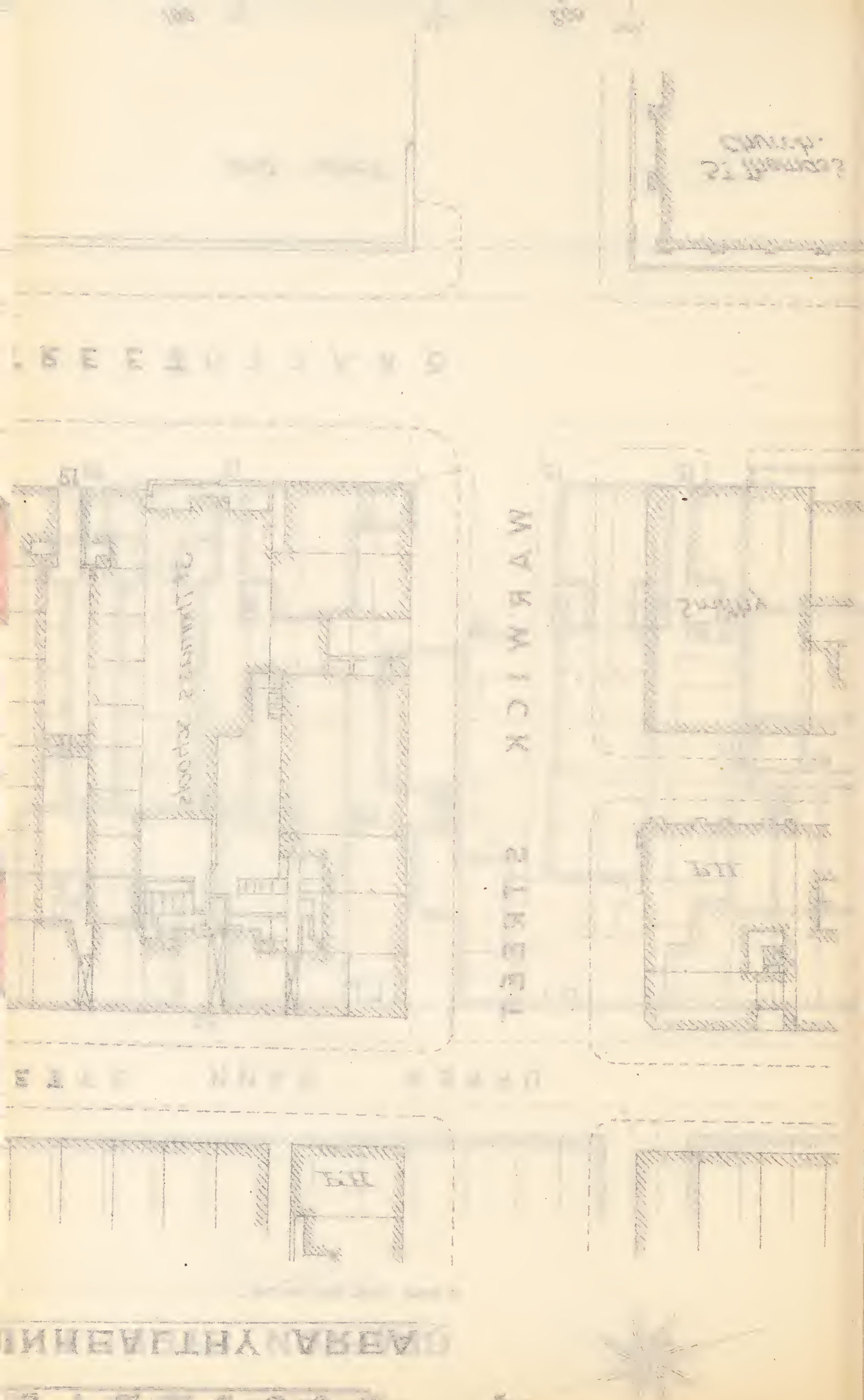
Night Ashes.	Dry Ashes.	Bell Ashes.	Street Cleansing.	Sweeping Machines.	Markets.	Tar Spraying.	Watering.	Abattoir.	Canals.	Destructors.	Various.	Daily Average. Total
0·79	22·23	87·43	59·65	5·79	2·01	1·30	10·53	1·51	1·43	15·41	1·69	209·77

TABLE No. 12.

AVERAGE DAILY STAFF OF MEN EMPLOYED.

General				Night Service.				Day Service.																Wharves, Depôts, &c.						
Inspectors.	Timekeepers.	Clerks.	Total.	Working Foreman.	Midden Men.	Wharf Man.	Total.	Inspectors.	Watchmen.	Watermen.	Sweepers and Casual Men.	Cart Followers (Sweeping and Bell and Box Ashes).	Passage Men.	Washing Streets & Passages	Gully Men.	Washing Courts.	Trough Water Closet and Urinal Men.	Orderly Boys.	Ash Men.	Boat Men.	Hopper Barge Crew.	Waste Paper.	Private Work.	Total.							
6·	7·	4·	17·	1·	3·	1·	5·	23·00	7·41	8·66	272·21	255 95	52·61	22·04	13·60	2·11	41·34	52·88	100·51	10·00	11·00	2·58	3.67	879·57	Foreman.	Chisenhale St. and Sandhills.	Labourers.	Wavertree.	Various Tips.	Collingwood Dock.	Total.	Grand Total.
																									1·0	17·0	2·0	8·0	2·0	30·0	931·57

INSANITARY PROPERTY.



CITY OF LIVERPOOL

GRAFTON STREET UNHEALTHY AREA

M. 4072 - 1500 6/11 - Est. C.C.

PH.

UPPER MANN STREET

30

13 15 17 19 21

St Thomas's Schools

WARWICK STREET

PH.

Smithy

GRAFTON STREET

Timber Yard.

St Thomas's Church.

100 50 0 100 200

Scale of Feet

CITY OF LIVERPOOL

GRAFTON STREET UNHEALTHY AREA

SHOWING NEW BUILDINGS ERECTED.

M. 4072 - 1500 6/11 - EST. B.B.

P.H.

UPPER MANN STREET

CORPORATION DWELLINGS

CORPORATION DWELLINGS

St Thomas's Schools

WARWICK STREET

P.H.

Smithy

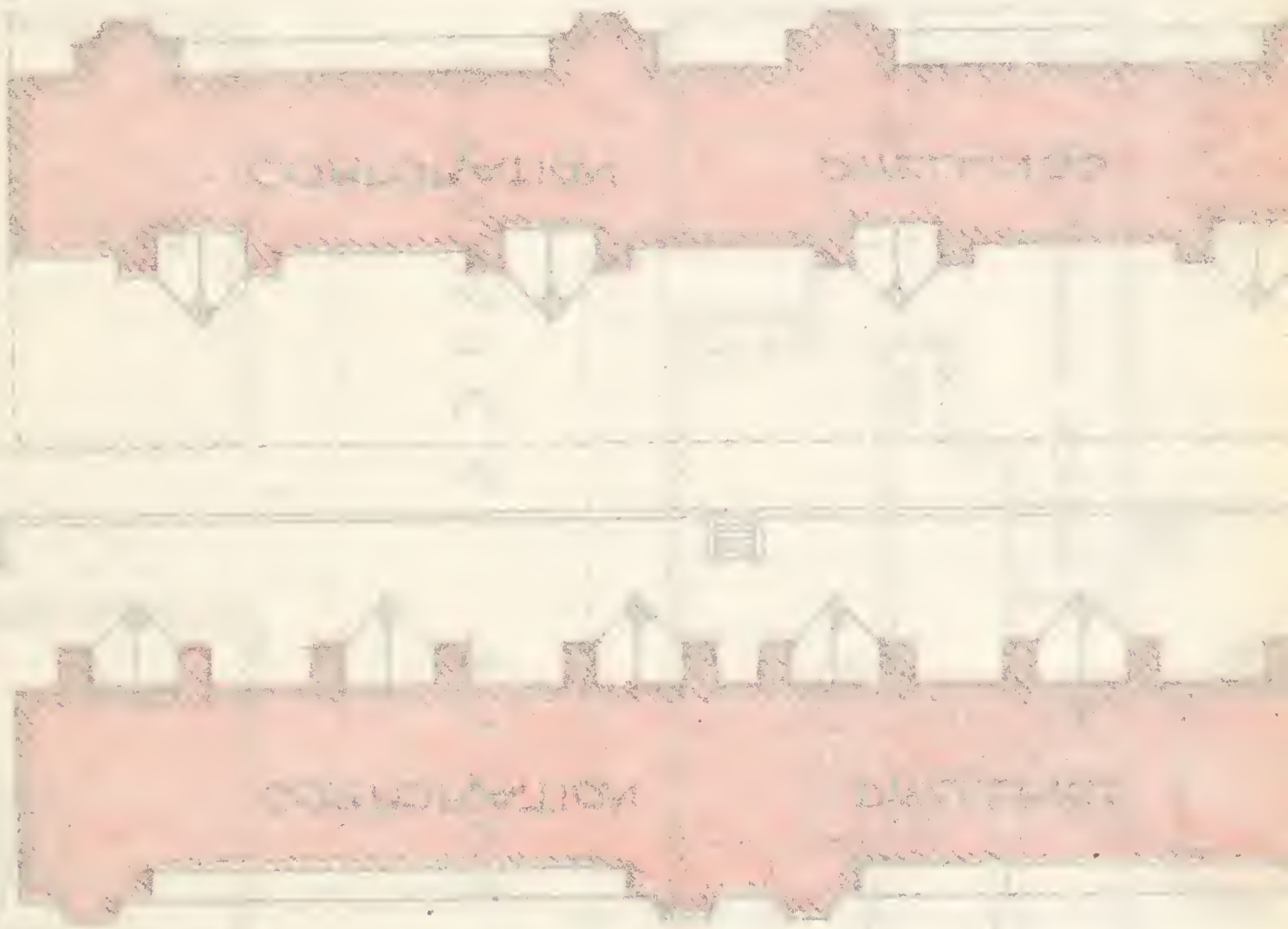
GRAFTON STREET

Timber Yard.

St Thomas's Church.

100 50 0 100 200

Scale of Feet.



INSANITARY PROPERTY.

The following tables show the progress of the work of the Housing Committee during the last five years so far as it is concerned with the removal of insanitary property under the Housing of the Working Classes Acts, 1890-1909.

Table 1.

Showing the number of houses dealt with during the year 1910, and indicating the action taken:—

			Courts.	Court houses.		Approx. No. of front houses.
Approximate number of insanitary houses existing on 1st January, 1910.			543	3037		1113
Proceedings authorised by the City Council during the year 1910, in regard to houses not previously referred to ...	Courts.	Court houses.			Front houses.	
"A" By Closing Orders ...	44	216			15	
"B" By schemes under the Housing of the Working Classes Act	—	—			—	
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation	8	42			10	
'D" Dealt with by owners for private improvements ...	6	45			8	
Total No. dealt with during 1910	58	303			33	
Leaving for future consideration			485	2734		1080

Of the above 303 Court houses and 33 Front houses dealt with in the year 1910, 130 have been demolished, 50 rendered sanitary, 101 closed, and 55 are occupied.

Table 2.

Statement showing the number of houses dealt with during the year 1909, and indicating the action taken:—

FRONT HOUSES.

Total No. of Front Houses dealt with during the year 1909.	No. of Houses.	Demo-lished.	Rend'red Sanitary.	Closed.	Occupied
"A" By Closing Orders	6	3	3	—	—
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation.	16	2	14	—	—
"D" Dealt with by owners for private improvements.....	6	6	—	—	—
Total	28	11	17	—	—

COURT HOUSES.

How Dealt With.	Total No. of Houses dealt with.	Demo-lished.	Rend'red Sanitary.	Closed.	Occupied
"A" By Closing Orders	206	126	39	33	8
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation	51	30	21	—	—
"D" Dealt with by owners for private improvements.....	95	95	—	—	—
Total No. dealt with during 1909	352	251	60	33	8

Table 3.

Statement showing the number of houses dealt with during the year 1908, and indicating the action taken:—

FRONT HOUSES.

Total No. of Front Houses dealt with during the year 1908.	No. of Houses.	Demo-lished.	Rend'red Sanitary.	Closed.	Occupied.
"A" By Closing Orders	3	2	1	—	—
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter or on the action of the Health Committee in asking for more closet accommodation	32	4	28	—	—
"D" Dealt with by owners for private improvements	11	11	—	—	—
Total.....	46	17	29	—	—

COURT HOUSES.

How Dealt With.	Total No. of Houses dealt with.	Demo-lished.	Rend'red Sanitary.	Closed.	Occupied.
"A" By Closing Orders	104	47	25	29	3
"B" By Schemes	—	—	—	—	—
"C" Alterations and improvements authorised on circular letter, or on the action of the Health Committee in asking for more closet accommodation	117	42	75	—	—
"D" Dealt with by owners for private improvements	53	53	—	—	—
Total No. dealt with during 1908	274	142	100	29	3

Table 4.

Statement showing the number of houses dealt with during the year 1907, and indicating the action taken:—

FRONT HOUSES.

Total No. of Front Houses dealt with during the year 1907.	No. of Houses.	Demo-lished.	Rend'red Sanitary	In Schemes but still occupied	Closed
"A" By Closing Orders	23	21	2	—	—
"B" By Schemes	14	14	—	—	—
"C" Cases in which summonses have been issued, but for which Closing Orders were not obtained up to 31st December, 1907.	21	—	21	—	—
"D" Alterations and improvements authorised on circular letter or on action of Health Committee in asking for more closet accommodation.	55	14	41	—	—
Total	113	49	64	—	—

COURT HOUSES.

How Dealt With.	Total No. of Houses Dealt with.	Demo-lished.	Rend'red Sanitary	In Schemes but still occupied	Closed.
"A" By Closing Orders	111	80	16	—	15
"B" By Schemes	54	54	—	—	—
"C" Cases in which summonses have been issued, but for which Closing Orders were not obtained up to 31st December, 1907.	67	29	38	—	—
"D" Alterations and improvements authorised on circular letter, or on action of Health Committee in asking for more closet accommodation.	60	26	34	—	—
Total	292	189	88	—	15
Less Houses included in Schemes, but also dealt with by Closing Orders.	5	—	—	—	5
Total No. of Court Houses dealt with during year 1907.	287	189	88	—	10

Table 5.

Statement showing the number of houses dealt with during the year 1906, and indicating the action taken:—

FRONT HOUSES.

Total No. of front houses dealt with during year 1906.	No. of Houses.	Demolished.	Rendered Sanitary.	In Schemes but still Occupied.	Closed.
"A" Closing Orders.....	19	18	1	—	—
"B" By Schemes.....	102	72	—	24	6
"C" By Circular letter	72	13	59	—	—
Total	193	103	60	24	6

COURT HOUSES.

How Dealt With.	Total No. of Houses dealt with.	Demolished.	Rendered Sanitary.	In Schemes but still Occupied.	Closed.
"A" Closing Orders	329	288	30	—	11
"B" By Schemes.....	517	267	—	152	98
"C" By Circular letter	170	99	71	—	—
Total.....	1,016	654	101	152	109
Less houses dealt with by Closing Orders, and included in Schemes ...	50	44	—	—	6
Total No. of Court Houses dealt with during the year 1906	966	610	101	152	103

Table 6.

SUMMARY.

Showing the total number of houses dealt with during the years 1906, 1907, 1908, 1909 and 1910.

FRONT HOUSES.

Year.	Total No. of Houses dealt with.	Demolished.	Rendered Sanitary.	In Schemes but still Occupied.	Closed.	Occupied.
1906	193	103	60	24	6	—
1907	113	49	64	—	—	—
1908	46	17	29	—	—	—
1909	28	11	17	—	—	—
1910	33	19	—	—	8	6
Total	413	199	170	24	14	6

COURT HOUSES.

Year.	Total No. of Houses dealt with.	Demolished.	Rendered Sanitary.	In Schemes but still Occupied.	Closed.	Occupied.
1906	966	610	101	152	103	—
1907	287	189	88	—	10	—
1908	274	142	100	—	29	3
1909	352	251	60	—	33	8
1910	303	111	50	—	93	49
Total	2,182	1,303	399	152	268	60

The nett result shows that during the five years 1906, 1907, 1908, 1909 and 1910, 1,502 insanitary dwellings have been demolished, 282 have been closed and await demolition or reconstruction, and 569 have been reconstructed and rendered sanitary, making a total for the five years of 2,353 (excluding those in schemes but still occupied), dealt with as follows:

1906	983
1907	400
1908	317
1909	372
1910	281
Total	2,353

APPEALS UNDER THE HOUSING OF THE WORKING CLASSES ACTS.

During the year two appeals were made to the Local Government Board under the provisions of the Housing of the Working Classes Acts against closing orders which had been made by the Committee; one related to property situate and being No. 5 in 8 Court, Burlington Street, and the other in respect to a number of insanitary houses numbered 2, 4, 6, 8, 10, 12 in 6 Court Great Homer Street.

In both cases the decision of the Committee was upheld, and the property ordered to be closed.

RETURN OF HOUSES ERECTED 1896-1910.

	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
nder £12	7	95	63	4	..	222	85	201	258	78	243	115	..	149	..
12 to £18	..	..	..	821	436	558	590	363	284	394	547	609	418	283	119
	944	1,138	1,276	..	..	..	..	..	..	..	..	..	..	..	..
18 to £25	..	..	..	769	602	633	962	1,058	1,067	872	1,039	1,022	1,102	1,369	1,279
25 to £35	204	389	539	607	402	441	323	706	449	638	422	444	195	191	168
35 and upwards	44	34	99	157	133	109	101	125	116	204	202	152	135	157	144
	1,199	1,656	1,977	2,358	1,573	1,963	2,061	2,453	2,174	2,186	2,453	2,342	1,850	2,149	1,710

LIVERPOOL SANITARY AMENDMENT ACT, 1864.

Under the provisions of the above Act, the Medical Officer of Health certified that the following premises were unfit for human habitation, and ought to be demolished:—

The court known as No. 2 court in Bickerstaffe Street in the City of Liverpool.

The dwelling-houses numbered 2, 4, 6 and 8 in the said No. 2 court.

The dwelling-houses numbered 3 and 4 in No. 2 court, Fox Street, in the City of Liverpool.

The dwelling-house numbered 1 in No. 4 court, Fox Street aforesaid

The court known as No. 2 court in Virgil Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 in the said No. 2 court.

The dwelling-houses numbered 66, 68 and 70 in Virgil Street aforesaid, contiguous to No. 2 court in the said street.

The dwelling-houses numbered 10, 12, 14, 16 and 18 in Creer Street, contiguous to No. 2 court in Virgil Street aforesaid.

The court known as No. 4 court in Virgil Street aforesaid.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 in the said No. 4 court.

The dwelling-houses numbered 72 and 74 in Virgil Street aforesaid, contiguous to No. 4 court in the said street.

The dwelling-houses numbered 1, 2, 3 and 4 in No. 2 court, Tenterden Street, in the City of Liverpool.

The dwelling-houses numbered 1, 3, 4 and 6 in No. 10 court in Limekiln Lane, in the City of Liverpool.

The court known as No. 1 court in Carruthers Street in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3 and 4 in the said No. 1 court.

The dwelling-houses numbered 5 and 7 in Carruthers Street aforesaid, contiguous to No. 1 court in the said street.

The court known as No. 2 court in Gay Street in the City of Liverpool.

The dwelling-house numbered 1 in the said No. 2 court.

The court known as No. 3 court in Scotland Road in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7, 8 and 9 in the said No. 3 court.

The court known as No. 7 court in Vauxhall Road, in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5 and 6 in the said No. 7 court.

The dwelling-houses numbered 2, 3, 4 and 5 in No. 8 court, Denison Street, in the City of Liverpool.

The dwelling-houses numbered 1, 2 and 3 in No. 10 court, Denison Street aforesaid.

The dwelling-houses numbered 5 and 6 in No. 5 court, Boundary Street, in the City of Liverpool.

The dwelling-houses numbered 5 and 6 in No. 7 court, Boundary Street aforesaid.

The dwelling-house numbered 2 in No. 12 court, Parr Street, in the City of Liverpool.

The dwelling-house numbered 2 in No. 14 court in Parr Street, aforesaid.

The dwelling-houses numbered 2 and 4 in No. 12 court, Watkinson Street, in the City of Liverpool.

The dwelling-house numbered 52 in Watkinson Street aforesaid, contiguous to No. 12 court in the said street.

The dwelling-houses numbered 1, 2, 7 and 8 in No. 5 court, Upper Stanhope Street, in the City of Liverpool.

The dwelling-houses numbered 1, 2, 7 and 8 in No. 7 court in Upper Stanhope Street aforesaid.

The court known as No. 4 court in Hampton Street, in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5 and 6 in the said No. 4 court.

The court known as No. 5 court in Blair Street in the City of Liverpool.

The dwelling-houses numbered 2, 4, 6, 8, 10 and 12 in the said No. 5 court.

The dwelling-houses numbered 17 and 19 in Blair Street aforesaid, contiguous to No. 5 court in the said street.

The dwelling-houses numbered 2, 4, 5 and 8 in No. 9 court, Grafton Street, in the City of Liverpool.

The dwelling-houses numbered 1, 3, 5 (formerly No. 7) and 8 in No. 11 court, Grafton Street, in the City of Liverpool.

The dwelling-houses numbered 1, 2, 3, 4, 5, 6, 7, 9 and 10 in No. 3 court in Back Grafton Street, in the City of Liverpool.

The court known as No. 5 court in Back Grafton Street aforesaid.

The dwelling-houses numbered 1 and 2 in the said No. 5 court.

The dwelling-house numbered 8 in No. 3 court, Back Grafton Street aforesaid.

The dwelling-house numbered 7 in Back Grafton Street aforesaid, contiguous to No. 3 court in the said street.

The dwelling-houses numbered 2, 5, 8, 11, 14 and 17, Pinnington's Cottages, Wavertree, in the City of Liverpool.

The dwelling-houses numbered 2, 5 and 8 in Mylrea Place, Wavertree, in the City of Liverpool.

The dwelling-house numbered 1a in Aigburth View, Hesketh Street, in the City of Liverpool.

CORPORATION DWELLINGS.

Applications for these tenements of which there are about 2,334, are referred to the Medical Officer for report; the total number received and investigated being 724.

These tenements are reserved for persons who have been dispossessed from their houses by any action of the Corporation, but only sober and well-conducted applicants are accepted.

The Housing Committee refer the applications to the Medical Officer of Health for investigation. These applications were dealt with by the Lodging House Inspectors, and in the event of there being any evidence of overcrowding, or illegal occupation of cellars, the application was marked accordingly, and returned to the Manager. The statements of many of the applicants were found to be incorrect, and it was deemed necessary to make a closer investigation, and for this purpose night visits were paid in many cases.

In dealing with these applications, it was found that in 581 instances the circumstances of the applicant did not comply with the Committee's conditions. Of this number 136 applicants gave false addresses, and in 445 cases there was no evidence that the alleged overcrowding or illegal occupation existed. Of the remaining 143 cases investigated, 55 were found to be cases of one family overcrowding a house or cellar, occupying an insanitary house, or illegal occupation of a cellar. These were dealt with under the Public Health Act and the Housing of the Working Classes Act. Eighty-eight were claims on account of alleged overcrowding in sub-let houses, of which, in 57 cases, it was found that there was no overcrowding, or the alleged overcrowding was easily remedied by some of the occupants leaving the premises, or by re-arranging the sleeping apartments.

There were 31 cases of overcrowding found in sub-let houses, and in 17 of these instances informations were laid against the chief tenants, and convictions followed.

The total number of cases of overcrowding in ordinary dwellings, cellars, and sub-let houses, and illegal occupation of cellars, was 143 arising out of 724 applications investigated, and in 84 instances the applicants were allowed to rent a Corporation dwelling.

In a considerable number of cases the overcrowding was of very recent date and the offence had evidently been committed with the intention of qualifying for a Corporation house. For instance, in 15 cases the length of tenancy ranged from three days to three weeks.

In some cases the applicants were found to be drunk at the time of the visit of inquiry. Twelve cases of drunkenness came under the notice of the Inspectors.

The total number of day visits paid during the year was 768, and 78 night visits were made, the total for the year being 846, from which it will be seen that a considerable amount of the Inspectors' time was taken up by investigating these applications.

SUPERVISION OF CORPORATION DWELLINGS

During the year the manager of the dwellings referred 32 tenements to the Medical Officer's Department for night visitation, as against 97 referred during the year 1909.

The number of tenements suspected was less than in the previous year, and the visits show a decrease in the number of contraventions of the regulations, especially with regard to sub-letting, there being 5 cases of this character as compared with 25 last year.

Night visits were paid to these tenements, with the result that 5 tenements were found sub-let, of which 2 were also overcrowded. There were also 9 tenements found overcrowded, but not sub-let, *i.e.*, occupied by one family and their relations (or friends in some instances), and one case of indecent occupation of a sleeping room, viz. :—One man and two women were found in the same bedroom.

During the year 15 cases of irregular or improper occupation were found in 14 tenements out of 32 visited, compared with 66 cases in 46 tenements out of 97 the preceding year.

Cases of overcrowding were not so numerous, 11 cases as against 25 in 1909.

The results of the night visits are communicated to the Manager of the Dwellings, who, where necessary, takes measures to abate the infringements.



SALTNEY STREET DWELLINGS.

Erected on the former site of insanitary property to re-house the dispossessed.

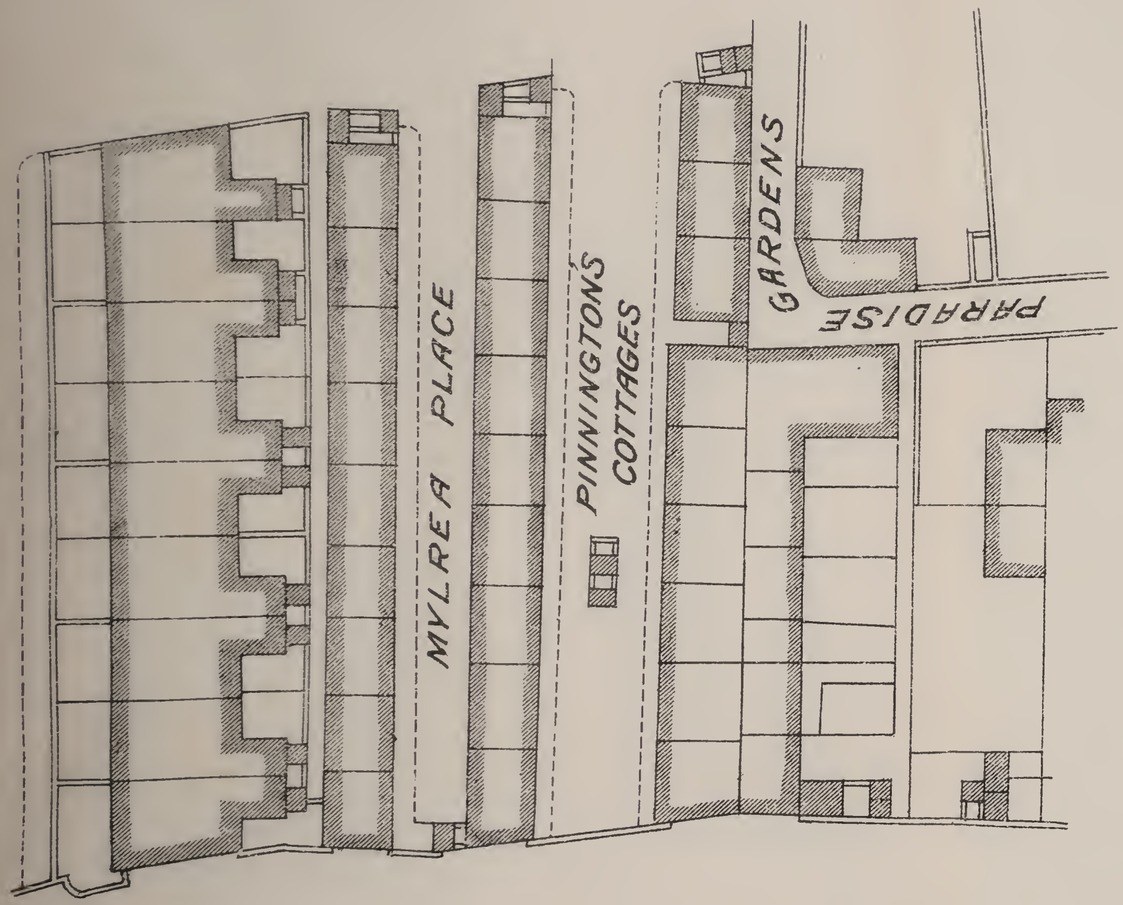


GRAFTON STREET DWELLINGS.

(Nearing completion.)

Erected on the former site of insanitary property to re-house the dispossessed.

PROPERTY AS FORMERLY EXISTING, WITHOUT THROUGH VENTILATION, YARD SPACE, OR SEPARATE W.C. ACCOMMODATION.

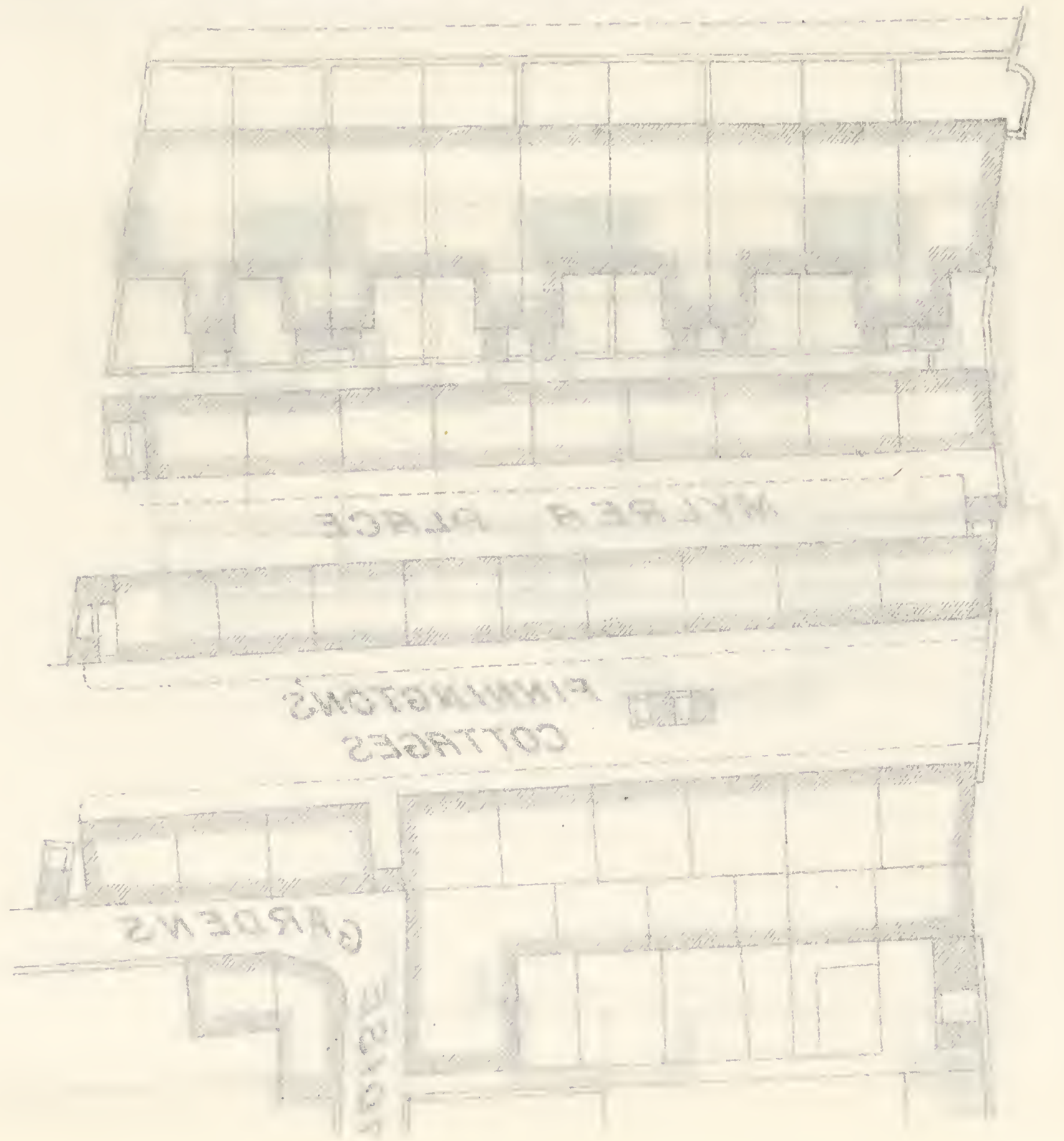


PROPERTY IMPROVED BY THE DEMOLITION OF ELEVEN HOUSES INDICATED IN BLUE, THE REMAINING HOUSES BEING RENDERED SANITARY AND PROVIDED WITH SEPARATE YARD SPACE AND W.C. ACCOMMODATION.



100 50 0 100 FEET.

CORP.TN SURVEYORS DEPT
L'POOL, 1911.


CHANCE TERRACE
FINNINGTONS
COTTAGES
GARDENS

The Corporation Surveyor has kindly supplied the following table :—

LIVERPOOL SANITARY AMENDMENT ACT, 1864.

INSANITARY PROPERTY.

Insanitary Property Purchased, 1910.

Number of houses purchased by Housing Committee included in Reports referred by Council to Committee	17

Insanitary Property Demolished, 1910.

Number of houses in respect of which Compensation for demolition was paid by Housing Committee included in Reports referred by Council to Committee	121

[Note.—The demolition of a great number of these houses has been accompanied by structural alterations to adjoining property, resulting in 7 "through" houses and 52 single houses being left standing. The term "through" house signifies that two insanitary houses have been converted into one house and made sanitary by the introduction of through ventilation, with separate yard space and w.c. accommodation, whilst the single houses have also been somewhat similarly improved.]

HOUSING OF THE WORKING CLASSES ACTS.

Number of houses purchased under various Improvement Schemes	103
Number of houses demolished under various Improvement Schemes	284

HOUSING OF THE WORKING CLASSES ACT, 1890.

(As amended by the Housing, Town Planning, &c., Act, 1909.)

Return made to the Local Government Board, in pursuance of Sec. 44 of the Housing of the Working Classes Act, 1890, in respect of the year ended 31st March, 1911.

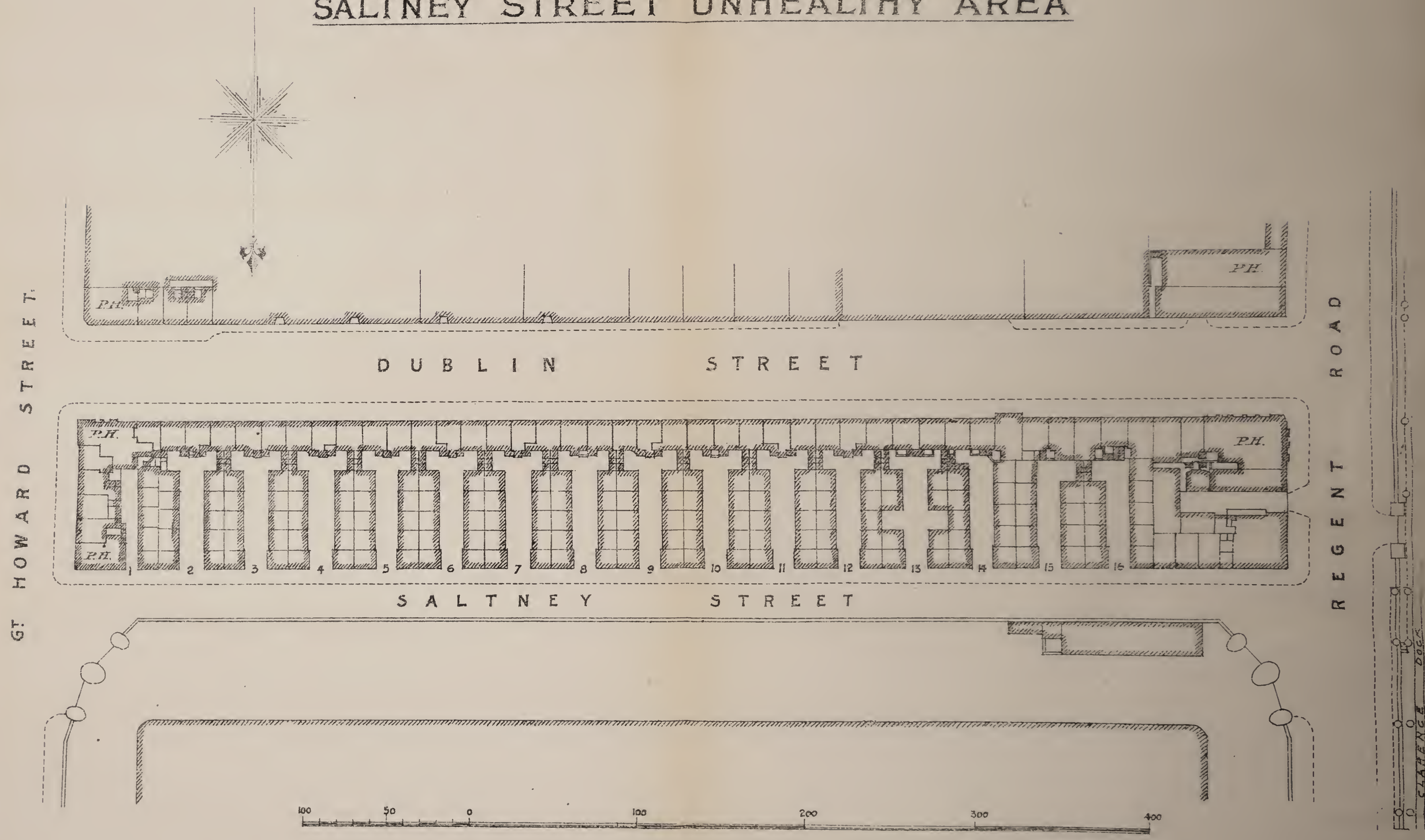
Buildings Unfit for Human Habitation.

Number of dwellings in respect of which representations were made to the Local Authority during the year:—	
(*a*) By the Medical Officer of Health	346
Number of dwelling houses in respect of which closing orders were made during the year	311
Number of dwelling houses ordered to be demolished by the Local Authority during the year (Sec. 18)	6



CITY OF LIVERPOOL

SALTNEY STREET UNHEALTHY AREA

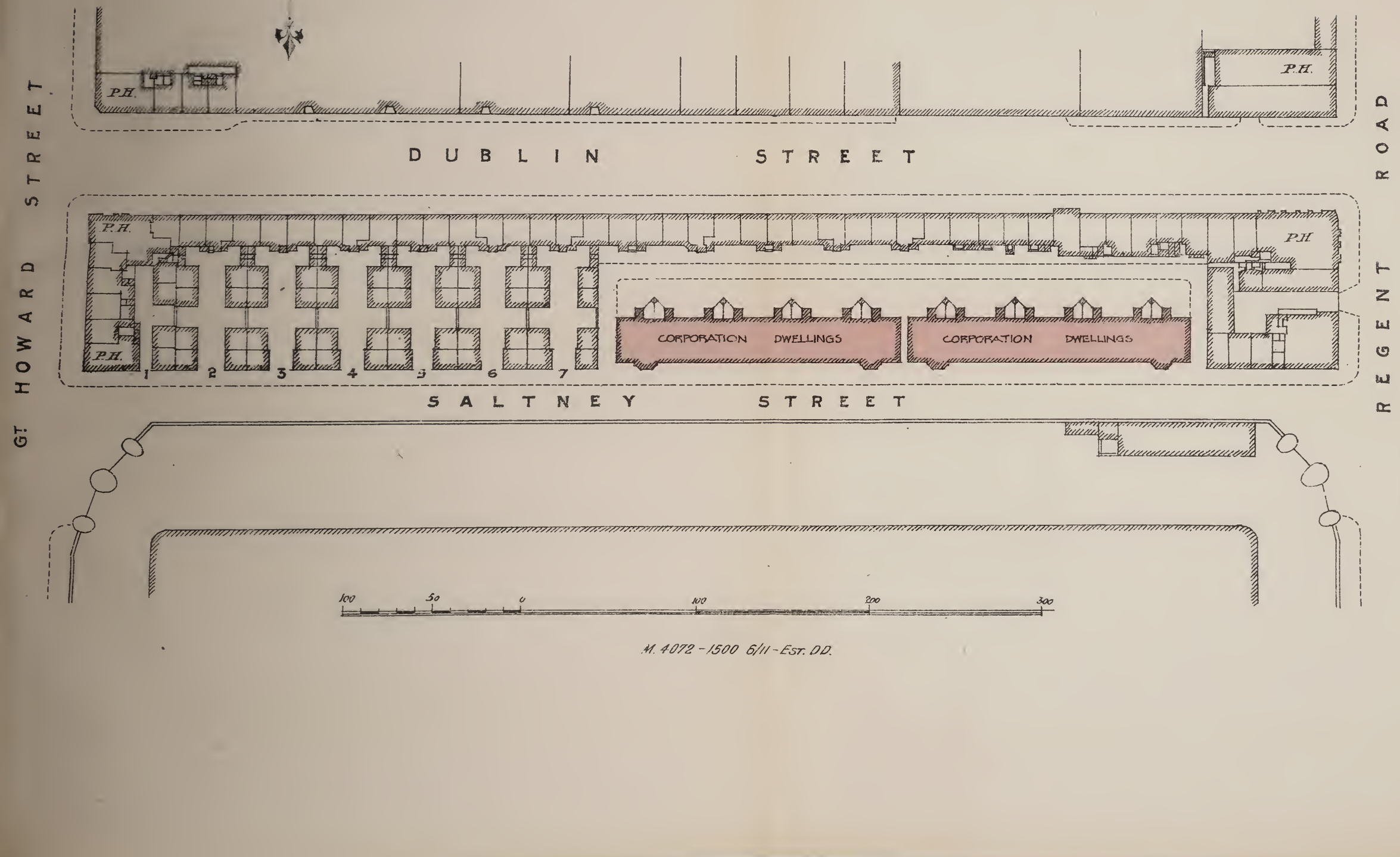


M. 4072 - 1500 6/41 - EST. E.E.

CITY OF LIVERPOOL

SALTNEY STREET UNHEALTHY AREA

SHOWING NEW BUILDINGS ERECTED.



M. 4072 - 1500 6/11 - EST. DD.

CITY HOSPITALS.

HOSPITAL ACCOMMODATION.

The number of beds in commission at the Parkhill Hospital has been varied from time to time during the last few years to meet the needs of the City. They were reduced in April of this year from 235 to 120, but owing to the increased prevalence of Measles in the autumn it became necessary to increase the accommodation to 180 beds. Some of the disused wards might with great advantage be used to accommodate patients suffering from Phthisis.

At the present time the number of beds available in the various hospitals is as follows:—

City Hospital North	162	beds.
,, South	100	,,
,, East	152	,,
,, Parkhill	180	,,
,, Fazakerley	350	,,
,, Fazakerley Annexe ...	160	,,
	1,104	,,

The approximate apportionment of beds is as follows, but the arrangement is modified as circumstances necessitate:—

Smallpox	160	beds.
Typhus Fever	10	,,
Typhoid Fever	50	,,
Scarlet Fever	584	,,
Diphtheria	90	,,
Measles	60	,,
Tuberculosis	50	,,
Isolation	100	,,
		,,
	1,104	,

The value of the hospitals, and the immense amount of useful work performed is shown by the fact that no less than 6,608 patients were treated within their walls during the year, the great majority of these being cases of scarlet fever.

The advantages of the hospitals are now so fully recognised by the public that the removal to hospital of their sick dependents is insisted upon, and claimed as a right. A few years ago, in cases similarly circumstanced, removals would never have been sought, and would even have been resisted.

The claims resulting from this enlightenment of the public cannot be met without expense, but it would be difficult to point to any example of necessary municipal expenditure in which the direct benefits, alike to the recipients and to the community, are so strongly marked.

The average duration of stay in hospital of patients whose treatment was completed during the year 1910 was as follows:—

Scarlet Fever Patients from	8 to 9 weeks.
Typhoid...	6 ,, 7 ,,
Typhus	5 ,, 6 ,,
Diphtheria	6 ,, 7 ,,

In many instances detention in hospital is very prolonged owing to the severity of the original illness, and the consequent slow convalescence of the patient.

Arrangements have been made between the Hospitals Committee and various Local Authorities to receive cases of infectious disease from districts beyond the city boundary, namely, Sefton Rural District, Waterloo and Seaforth, Great Crosby, Little Crosby, Allerton, Childwall, and the Children's Convalescent Home, West Kirby.

Arrangements have also been made to deal with any case of cholera, yellow fever, or plague which may arise in any of the neighbouring urban or rural districts. A suitable charge is made in each case.

Probationers are received at some, but not all, of the city hospitals, and under the arrangements now made for their training the course of instruction is a very full and complete one.

A scheme was adopted by the Council in September, 1907, by which 24 beds at the City Hospital, Fazakerley, were to be devoted to the treatment of cases of Tuberculosis. The great success which has attended this experiment has sufficiently proved its value, and early in 1909 the number of beds for this purpose was increased to 50. The structural completeness of this hospital, the climatic and soil conditions obtaining, together with the exceptional facilities for laboratory work, render the hospital at Fazakerley particularly suited to this undertaking. Evidence is not yet available to show how far the great temporary improvement in the disease has been followed by its permanent arrest in those patients who have been discharged from Hospital, but a system is adopted by which they shall present themselves at regular intervals for examination. Patients subsequent to their discharge from the Sanatorium Wards continue, where necessary, under the observation of the inspectors of the Health Department. This measure has been adopted in a large majority of the cases, and has proved a valuable adjunct to hospital treatment. Attention has been given to the requirements of each individual patient, and the measures essential to the protection of the remaining members of the family have been stringently insisted upon under the direction of inspectors trained in this work. (See page 48).

The proposal to allocate certain available wards at Parkhill Hospital for cases of Tuberculosis is growing in favour.

Dr. Rundle has kindly supplied the following information in reference to the treatment of Tuberculosis and Infantile Diarrhœa patients in the Fazakerley Hospital: —

The accommodation allocated at Fazakerley to cases of Tuberculosis has proved inadequate to meet the demands of patients nominated for admission. Priority has been given to those whose home and domestic conditions are such as to make their removal to an Institution particularly desirable; valuable information in this respect has been obtained by Dr. Hawksley and the Inspectors of the Public Health Department.

As in previous years, applicants are required to give satisfactory evidence that they are unable to pay the charges incidental to private sanatoria. Definite evidence of the presence of tuberculosis is insisted upon, no cases being admitted in which the diagnosis is doubtful. Thus of 183 cases received during the year, clinical evidence of tuberculous disease at the time of admission was present in 163 cases, distributed as follows:

Pulmonary	144
Pulmonary and Laryngeal	5
Pulmonary and Intestinal	2
Pulmonary and Mesenteric	2
Pulmonary and Osseous	2
Pulmonary and Meningeal	1
Pulmonary and Glandular	1
Glandular	5
Articular	1

The remaining 20 cases exhibited a positive Von Pirquet's reaction, and in 8 of these tubercle bacilli were found in the sputum within a few days of their admission.

As in previous years the work done by the Consumption Hospital in the selection and classification of cases for admission to Fazakerley has been very considerable and of great value.



FAZAKERLEY HOSPITAL FOR CONSUMPTIVES.
South aspect of pavilions with part of lawns.



FAZAKERLEY HOSPITAL FOR CONSUMPTIVES.
A section of ward interior.



FAZAKERLEY HOSPITAL FOR CONSUMPTIVES.
A ward verandah, with casement side-screens.



FAZAKERLEY HOSPITAL FOR CONSUMPTIVES.

A sleeping châlet.



FAZAKERLEY HOSPITAL FOR CONSUMPTIVES.

Graduated exercise : first stage.



FAZAKERLEY HOSPITAL FOR CONSUMPTIVES.
A later stage of graduated labour.



The number of cases of epidemic diarrhœa removed to the City Hospital, Fazakerley, during 1910 was somewhat greater than in the preceding year. In some fatal cases included under this heading the diarrhœa was the determining cause of death in infants suffering from a pre-existing organic disease.

The following is an analysis of the varieties of feeding in 38 cases admitted :—

Breast alone, 1.

Breast, supplemented with artificial foods, 6.

Cow's milk, alone or combined with artificial foods, 24.

Artificial foods only, 4.

In three cases sterilised milk formed the sole article of diet at the time of the patients' admission to hospital, but on enquiry it was stated that this food had been resorted to as an alternative to other methods of feeding in children who were already far advanced in their disease. It has been observed, as in former years, that the dummy teat or "comforter" is rarely absent in cases of this description, its use being admitted in 26 of our 38 patients.

The limited accommodation allocated to the treatment of epidemic diarrhœa has proved insufficient to provide for the detention under treatment of all cases until their cure is complete. The services of the Lady Inspectors of the Health Department have proved of the greatest value in the subsequent control of these patients, and have enabled the measures adopted in hospital to be continued under skilled observation at home.

Research work conducted at the Liverpool University School of Hygiene on the material which has been available at the City Hospital, Fazakerley, during the year has enabled a distinct advance to be made in the bacteriology of this disease. It has been demonstrated that one variety of Epidemic Diarrhœa, possibly the most common form, is associated with the presence of Bacilli closely related to, if not identical with, the B. Aertyck (alias B. Suipestifer) of the Gaertner group. This view of the etiology of epidemic diarrhœa has since received support from the observations of investigators elsewhere, and justifies a belief that further research work will add considerably to our knowledge of the methods of transmission of this disease.

INFECTIOUS DISEASE.

The following table shows the number and nature of cases of Infectious Disease coming under the notice of the Medical Officer of Health during he year 1910, including those reported under the Notification Act.

Year—1910.	FEVER.				Smallpox.	Scarlatina.	Measles.	Diphtheria.	Membranous Croup.	Puerperal Fever.	Erysipelas.	Total.
	Typhus.	Typhoid.	Simple.	Relapsing.								
January	...	33	...	...	4	351	365	91	...	5	65	914
February	1	20	...	...	2	270	422	84	...	2	52	853
March	...	11	...	...	...	377	636	80	1	4	72	1,181
April	1	20	...	...	1	268	177	68	1	4	75	615
May	1	15	...	...	...	287	952	60	1	5	59	1,380
June	...	14	...	...	...	249	878	77	...	4	53	1,275
July	...	13	...	...	1	286	134	73	...	3	62	572
August	...	23	...	...	1	433	144	74	...	2	52	729
September	...	24	1	...	1	473	169	96	...	4	58	826
October.....	...	19	1	...	...	452	297	114	1	2	89	975
November	1	17	...	...	...	420	269	87	4	3	59	860
December.....	7	22	...	...	...	336	312	97	3	3	105	885
Total	11	231	2	...	10	4,202	4,755	1,001	11	41	801	11,065
Removed to hospital	11	176	...	...	10	3,546	478	733	5	21	313	5,193

The number of patients removed to hospital includes those taken to the general hospitals as well as those taken to the city hospitals. (See page 131).

THE INFECTIOUS DISEASE (NOTIFICATION) ACT

The number of notifications received by the Medical Officer under the above Act, during the past five years, were as follows:—

	1906.	1907.	1908.	1909.	1910.
January ...	803	527	407	595	545
February	583	403	395	533	455
March ...	634	381	449	549	559
April ...	410	412	535	590	457
May ...	365	454	650	588	450
June ...	409	437	631	602	441
July ...	335	352	624	478	443
August ...	368	391	541	434	590
September	475	476	684	507	676
October ...	674	476	668	543	687
November	655	593	653	602	634
December	550	472	651	583	578
	6,261	5,374	6,888	6,604	6,515

The diseases were specified as follows:—

	1906.	1907.	1908.	1909.	1910.
Smallpox	110	25	4	7	13
*Chickenpox	636	—	—	—	—
Scarlet Fever	2,765	2,727	4,242	4,001	4,152
Typhoid Fever	510	546	490	331	272
Typhus Fever	46	91	34	24	14
Continued Fever	29	16	18	14	7
Remittent Fever	2	—	1	—	—
Relapsing Fever	1	2	—	1	
Fever	1	1	1	2	—
Puerperal Fever	116	69	63	65	43
Diphtheria	915	970	1,104	1,278	1,135
Membranous Croup.	36	37	32	26	38
Erysipelas	1,087	847	896	846	824
‡Anthrax	7	15	3	9	11
†Cerebro-Spinal Fever	—	28	—	—	5
	6,261	5,374	6,888	6,604	6,515

* Not now notifiable.

† Scheduled as a notifiable disease for 6 months, from March, 1907

‡ Scheduled as a notifiable disease for 3 years, from June, 1907.

NUMBER OF CASES REPORTED AND NUMBER REMOVED TO HOSPITALS, 1889-1910.

	Smallpox.		Scarlet Fever.		Typhoid.		Typhus.		Diphtheria and Membranous Croup.		Measles.	
	Number Reported.	Number Removed.	Number Reported.	Number Removed.	Number Reported.	Number Removed.	Number Reported.	Number Removed.	Number Reported.	Number Removed.	Number Reported.	Number Removed.
1889 ..	9	8	1,832	533	670	302	158	124	122	39	3,175	104
1890 ..	2	2	3,520	938	506	296	103	87	212	55	4,013	152
1891 ..	21	21	1,176	448	588	350	175	156	237	49	2,262	160
1892 ..	177	177	1,554	603	699	345	73	70	227	29	3,376	150
1893 ...	75	73	3,538	1,380	1,396	728	183	168	250	30	2,316	94
1894 ..	229	226	3,963	1,415	1,350	745	325	312	337	47	2,494	122
1895 ..	130	127	2,710	1,039	1,306	662	162	158	340	77	3,462	93
1896 ...	8	8	3,584	1,589	1,063	539	305	298	533	120	2,930	138
1897 ..	6	6	3,001	1,641	991	559	158	156	430	118	4,389	94
1898 ..	17	16	2,424	1,467	863	585	92	84	554	191	2,458	105
1899 ...	10	10	2,416	1,537	988	668	70	64	793	277	5,107	140
1900 ...	156	154	1,968	1,198	731	450	42	41	709	312	2,372	108
1901 ...	37	37	3,310	1,814	864	567	55	54	870	467	6,766	185
1902 ...	560	559	5,914	2,994	1,026	670	155	155	1,102	516	7,141	177
1903 ...	1,720	1,719	4,053	2,145	681	462	272	266	878	412	2,728	114
1904 ...	27	27	2,988	2,214	434	296	97	97	1,061	690	9,453	428
1905 ...	15	14	4,308	3,147	325	235	98	95	1,003	606	3,938	322
1906 ...	19	19	2,959	2,191	491	360	52	49	910	567	6,819	389
1907 ...	19	19	2,741	2,144	482	373	116	116	929	631	5,640	342
1908 ...	7	7	4,295	3,528	447	360	21	20	1,017	721	4,653	227
1909 ...	9	9	4,059	3,289	278	223	17	17	1,133	819	6,356	585
1910 ...	10	10	4,202	3,546	231	176	11	11	1,112	738	4,755	478

The following tables, prepared by the Medical Staff of each Hospital, show the number of patients, the nature of the illness, and the results, at each of the six hospitals during the year 1910.

CITY HOSPITAL NORTH, NETHERFIELD ROAD.

Visiting Physician, Dr. R. I. RICHARDSON.

Resident Physician, Dr. E. A. WILLIAMS.

Diseases.	Remaining Dec. 31st, 1909.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever.	88	678	1	767	78	—	550	102	13	37	5·4
Enteric Fever.	10	102	—	112	—	—	78	20	2	14	13·7
Typhus Fever	3	10	—	13	—	—	6	7	—	—	—
Diphtheria ...	—	3	—	3	1	—	2	—	—	—	—
Measles	—	11	—	11	—	1	6	—	—	4	36·3
Other Diseases	—	76	—	76	—	—	41	—	17	35	46·0
Isolation and Observation Cases	—	7	—	7	—	—	5	2	—	—	—
Totals ...	101	887	1	989	79	1	688	131	32	90	10·1

35·5% of the total deaths took place within periods varying from twenty five minutes to forty eight hours of admission.

SCARLET FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases.....	241	265	148	17	5	1	1	678
No. of Deaths	29	6	2	—	—	—	—	37
Percentage of Deaths	12·0	2·2	1·3	—	—	—	—	5·4

ENTERIC FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases.....	5	19	27	26	16	8	1	102
No. of Deaths	—	—	3	5	5	1	—	14
Percentage of Deaths	—	—	11·1	19·2	31·2	12·5	—	13·7

TYPHUS FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	—	3	1	5	1	—	—	10
No. of Deaths.....	—	—	—	—	—	—	—	—

DIPHTHERIA.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases.....	1	1	—	1	—	—	—	3
No. of Deaths.....	—	—	—	—	—	—	—	—

OTHER DISEASES.

Disease.	Admitted.	Died.
Tubercular Meningitis	9	9
Phthisis Pulmonalis	3	2
Meningitis (Septic)	2	2
Lobar Pneumonia	18	6
Broncho-Pneumonia	7	3
Bronchitis	1	—
Follicular Tonsillitis	4	—
Empyema	2	1
Gangrene of the Lung	2	2
Quinsy	2	—
Influenza	1	—
Rheumatism	1	—
Puerperal Fever	2	—
General Peritonitis	1	1
Gastric Catarrh	7	—
Dysentery	1	—
Uræmia	1	1
Purpura Hæmorrhagica	2	1
Scalds	2	2
Septicœmia	3	2
Zymotic Diarrhœa	1	1
Delirium Tremens	1	1
Cirrhosis of Liver	2	1
Dietetic Rash	1	—
	76	35

Death rate=46·0%.

48·5% of these deaths took place within periods varying from twenty-five minutes to forty-eight hours of admission,

CITY HOSPITAL SOUTH, GRAFTON STREET.

Visiting Physician, Dr. N. E. ROBERTS.

Resident Physician, Dr. J. GREEN.

Diseases.	Remaining Dec. 31st, 1909.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever.....	61	563	—	624	249	8	264	72	6	31	5·5
Enteric Fever.....	5	23	—	28	—	—	17	8	—	3	13·0
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	35	—	35	—	1	13	16	—	5	14·2
Measles	—	5	—	5	—	5	—	—	—	—	—
Other Diseases.....	1	38	—	39	—	11	19	2	1	7	18·4
Isolation & Observation Cases	2	26	—	28	—	5	22	1	—	—	—
Totals	69	690	—	759	249	30	335	99	7	46	6·6

SCARLET FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	174	248	107	23	10	1	—	563
No. of Deaths	16	13	2	—	—	—	—	31
Percentage of Deaths	9·1	5·2	1·8	—	—	—	—	5·5

ENTERIC FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	3	2	7	5	5	1	—	23
No. of Deaths.....	—	—	1	—	2	—	—	3
Percentage of Deaths..	—	—	14·2	—	40·0	—	—	13·0

DIPHTHERIA.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases	15	9	5	3	1	2	—	35
No. of Deaths	2	2	1	—	—	—	—	5
Percentage of Deaths,.	13·3	22·2	20·0	—	—	—	—	14·2

OTHER DISEASES.

Disease.	Admitted.	Died.
Eczema	1	—
Enteritis	1	—
Erysipelas	1	—
Malaise	1	—
Marasmus	2	1
Tubercular Meningitis	1	1
Pneumococcal Meningitis	1	1
Nephritis	1	—
Peritonitis	1	—
Pleurisy	1	—
Broncho-Pneumonia	1	1
Lobar Pneumonia	13	3
Tonsillitis	13	—
	38	7

Mortality=18·4 %.

CITY HOSPITAL, PARK HILL.

Visiting Physician, Dr. N. E. ROBERTS.

Resident Physician, Dr. A. G. JENNER.

Diseases.	Remaining Dec. 31st, 1909.	Admitted during the year.	Transferred from other City Hospitals	Total under Treatment during the year.	Transferred to Convalescent Hospital	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever	126	594	—	720	103	—	460	139	1	18	3·03
Typhus Fever	—	1	—	1	—	—	1	—	—	—	—
Diphtheria.....	23	38	—	61	—	2	53	—	3	6	15·7
Measles	—	141	6	147	—	—	110	25	2	12	8·5
Other Diseases	1	15	—	16	—	—	14	—	—	2	13·3
Isolation and Observation Cases.....	11	18	8	37	—	—	23	14	—	—	—
Totals	161	807	14	982	103	2	661	178	6	38	4·7

SCARLET FEVER.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total.
No. of cases.....	178	259	122	27	7	1	—	594
No. of deaths	8	8	2	—	—	—	—	18
Percentage of deaths.....	4·4	3·08	1·6	—	—	—	—	3·03

TYPHUS FEVER.

	Age Periods.							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases.....	—	—	—	1	—	—	—	1
No of Deaths	—	—	—	—	—	—	—	—

DIPHTHERIA.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total.
No. of cases	12	8	10	5	3	—	—	38
No. of deaths	3	2	1	—	—	—	—	6
Percentage of deaths.....	2·5	2·5	10	—	—	—	—	15·7

OTHER DISEASES.

Disease	Admitted		Died
Broncho-Pneumonia	2	.....	—
Tonsillitis.....	2	.....	—
General Tuberculosis	1	.....	1
Nephritis	1	.....	—
Chicken-Pox	2	.....	—
Parotitis	1	.....	—
Erysipelas	3	.....	1
Lobar Pneumonia	2	.....	—
Isolation	*37	.....	—
	51		2

Mortality = 3·9%.

* In addition to these cases, many other cases were, for different reasons, temporarily isolated.

CITY HOSPITAL EAST, MILL LANE, OLD SWAN.

Visiting Physician, DR. H. A. CLARKE.

Resident Physician, DR. A. E. HODGSON.

DISEASES.	Remaining Dec. 31st, 1909.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever...	80	495	—	575	103	—	373	72	6	27	5·45
Enteric Fever..	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	43	372	—	415	—	—	332	45	13	38	10·21
Measles	—	7	—	7	—	—	4	—	1	3	42·8
Other Diseases.	12	99	—	111	—	—	86	16	3	9	9·09
Isolation and Observation Cases.....	3	18	—	21	—	—	21	—	—	—	—
Totals.....	138	991	—	1129	103	—	816	133	23	77	7·6

SCARLET FEVER.

	AGE PERIODS							
	Under 5	5—10	10—20	20—30	30—40	40—50	50 upwards.	Total.
No. of Cases...	156	223	95	14	5	1	1	495
No. of Deaths	15	7	3	2	—	—	—	27*
Percentage of deaths	9·6	3·1	3·1	14·2	—	—	—	5·45

* Thirteen of these were cases of "Septic Scarlet Fever," sent into Hospital as "Diphtheria."

DIPHTHERIA.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total
No. of Cases	158	142	57	12	3	—	—	372
No. of Deaths.....	28	10	—	—	—	—	—	38*
Percentage of Deaths	17·7	7·04	—	—	—	—	—	10·2

* Of these deaths 13 or 34·2 % took place within periods varying between ten minutes and 48 hours after admission to Hospital.

Table based upon 547 consecutive cases of Diphtheria classified according to age, and day of disease on which Antitoxin treatment was commenced.

Ages.	Day of Disease on which Serum Treatment was begun.												Total.		Mortality per cent.
	1st		2nd		3rd		4th		5th		6th and up.				
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Under 1	—	—	—	—	1	1	1	—	—	—	—	—	2	1	50·0
1—2	1	—	7	1	8	2	7	2	13	5	9	7	45	17	37·7
2—3	2	—	14	1	6	1	2	1	1	1	13	4	38	8	21·0
3—4	4	—	6	—	5	1	18	4	14	1	16	3	63	9	14·2
4—5	3	—	8	—	8	—	14	2	9	2	16	3	58	7	12·0
5—10	5	—	28	—	32	—	33	5	39	7	45	4	182	16	8·7
10—15	2	—	14	—	13	—	12	—	7	1	29	2	77	3	3·8
15—20	—	—	8	—	5	—	3	—	3	—	8	—	27	—	—
20—up.	1	—	19	—	12	—	9	—	1	—	13	—	55	—	—
Total.	18	—	104	2	90	5	99	14	87	17	149	23	547	61	
Mortality per cent.	—		1·9		5·5		14.1		19·5		15·3		11·1		

The table shows particularly the marked benefits obtained by the early administration of Antitoxin.

OTHER DISEASES.

Disease.	Admitted.	Died.
*Tonsillitis	55	—
Broncho-Pneumonia	7	4
Broncho-Pneumonia and Pertussis	2	2
Lobar Pneumonia	3	—
Laryngitis	5	—
Pharyngitis	3	—
Syphilis	2	—
Dermatitis	3	—
Erysipelas	3	—
Bronchitis : Acute	1	—
Cerebral Tumour	1	—
Hemiplegia	1	1
Meningitis	1	—
Alveolar Abscess	1	—
Abscess of Face	1	—
Acute Rheumatism	1	—
Spasmodic Croup	1	—
Stomatitis	1	—
Appendicitis	1	—
Tubercular Peritonitis	1	—
Zymotic Enteritis	1	1
Chronic Anæmia and Uterine Hæmorrhage	1	1
Influenza	1	—
Scald on Shoulder	1	—
Varicella	1	—
	99	9

Mortality = 9·09 %.

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* This section comprises the cases which, sent to Hospital as "Diphtheria," proved "Negative" on Bacteriological Examination.

CITY HOSPITAL, FAZAKERLEY.

Medical Superintendent, DR. C. RUNDLE.

Resident Physicians { DR. E. H. R. HARRIES. DR. R. McLAREN.

Diseases.	Remaining Dec. 31st., 1909.	Admitted during the year.	Transferred from other City Hospitals	Total under Treatment during the year.	Transferred to other City Hospitals	Discharged Cured	Remaining at end of year 1910	Died within 48 hours of Admission	Total Deaths	Total Mortality per cent. of Admissions.
Scarlet Fever	135	836	113	1084	15	867	170	6	32	3·8
Enteric Fever.....	—	3	—	3	—	3	—	—	—	—
Tuberculosis	50	183	—	233	—	*176	52	—	5	2·1
Diphtheria	37	228	1	266	—	221	30	3	15	6·5
Erysipelas	3	92	1	96	—	87	5	—	4	4·3
Measles	21	181	10	212	11	178	1	6	22	12·15
Other Diseases	21	266	16	303	2	243	17	8	41	15·4
Epidemic Diarrhœa.....	1	38	—	39	—	29	—	1	10	26·3
Isolation and Observation Cases	4	19	—	23	—	22	1	—	—	—
Puerperal Fever	7	12	—	19	—	17	1	1	1	8·3
Totals	279	1858	141	2278	28	1843	277	25	130	6·9

* Disease improved or arrested.

SCARLET FEVER.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total
No. of Cases.....	240	335	209	36	15	1	—	836
No. of Deaths.....	22	8	2	—	—	—	—	32
Percentage of Deaths	9·16	2·38	·95	—	—	—	—	3·8

ENTERIC FEVER.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total
No. of Cases	1	1	—	—	1	—	—	3
No. of Deaths.....	—	—	—	—	—	—	—	—

DIPHTHERIA.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total
No. of Cases	51	99	48	20	3	2	—	228
No. of Deaths.....	4	10	1	—	—	—	—	15
Percentage of Deaths	7·8	10·1	2·08	—	—	—	—	6·5

OTHER DISEASES.

Disease.	Admitted.		Died.
Anthrax	1	.....	1
German Measles	8	.....	—
Measles and Whooping Cough	11	.....	2
Measles and Diphtheria	2	.....	1
Acute Rheumatism.....	1	.....	—
Scarlet Fever and Measles	5	.....	1
Scarlet Fever, Erysipelas and Varicella	1	.....	1
Scarlet Fever and Whooping Cough	13	.....	1
Scarlet Fever, Diphtheria and Whooping Cough ...	1	.....	1
Scarlet Fever and Varicella	4	.....	—
Scarlet Fever and Diphtheria	18	.....	4
Scarlet Fever, Chicken-pox and Mumps.....	1	.....	—
Syphilis	3	.....	—
Tubercular Meningitis.....	2	.....	2
Tuberculosis (Laryngeal and Pulmonary)	1	.....	1
General Tuberculosis	4	.....	3
Erysipelas and Pulmonary Tuberculosis	1	.....	1
Pulmonary Tuberculosis.....	1	.....	1
Phthisis and Puerperal Septicæmia.....	1	.....	1
Tuberculosis of Bones of Face	1	.....	—
Varicella.....	41	.....	1

OTHER DISEASES—*Continued.*

Disease.	Admitted.		Died
Whooping Cough	28	.....	2
Anæmia	1	.....	—
Cancer of Rectum	1	.....	1
Injuries Received at Birth	1	.....	1
Ptomaine Poisoning	1	.....	1
Cerebral Hæmorrhage	1	.....	—
Chorea	1	.....	—
Acute Bronchitis	1	.....	—
Lobar Pneumonia	4	.....	1
Broncho-Pneumonia	13	.....	3
Empyema	2	.....	1
Stomatitis	5	.....	—
Tonsillitis	39	.....	—
Gastritis	3	.....	—
Enteritis	6	.....	—
*Retro Pharyngeal Abscess	1	.....	1
Constipation	1	.....	—
Submaxillary Lymphatic Abscess	1	.....	—
Mastitis	1	.....	—
Erythema	3	.....	—
Eczema	1	.....	—
Impetigo	2	.....	—
Furunculosis	1	.....	—
Lichen Urticatus	2	.....	—
Cellulitis	8	.....	2
Abscess	3	.....	—
Burns of Skin	1	.....	1
Malnutrition	13	.....	5
	266		41

Mortality ... ... 15·4 %.

* Remaining 1909. Died 1910.

CITY HOSPITAL, FAZAKERLEY ANNEXE.

Medical Superintendent, DR. C. RUNDLE.

Diseases.	Remaining Dec. 31st, 1909.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Deaths. Direct Admissions.	Deaths. Transfers from other City Hospitals.	Total Mortality per cent. of Admissions. Direct Admissions.	Total Mortality per cent. of Admissions. Transfers from other City Hospitals.
Scarlet Fever.....	110	340	470	920	14	776	120	—	10	—	2·9	—
Small Pox	—	5	—	5	2	3	—	—	—	—	—	—
Measles	—	107	11	118	7	102	—	—	9	—	8·4	—
Other Diseases.....	—	40	12	52	9	36	2	1	5	—	12·5	—
Isolation and Observation Cases	1	24	—	25	3	22	—	—	—	—	—	—
Totals	111	516	493	1120	35	939	122	1	24	—	4·6	—

SCARLET FEVER.

	Age Periods. Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards.	Total.
No. of Cases	104	151	75	5	3	2	—	340
No. of Deaths	6	4	—	—	—	—	—	10
Percentage of Deaths	5·7	2·6	—	—	—	—	—	2·9

SMALL POX.

	Age Periods.							
	Under 5	5–10	10–20	20–30	30–40	40–50	50 upwards	Total.
No. of Cases.....	—	—	—	3	1	—	1	5
No. of Deaths.....	—	—	—	—	—	—	—	—

OTHER DISEASES.

Disease.	Admitted.	Died.
Lobar Pneumonia	1	1
Acute Nephritis	2	—
Rubella	2	—
Mumps.....	1	—
Varicella.....	14	—
Scarlet Fever and Varicella	6	1
Scarlet Fever and Typhoid Fever.....	1	1
Scarlet Fever and Malaria	1	—
Scarlet Fever and Pertussis	2	—
Scarlet Fever and Measles	1	1
Measles and Pertussis.....	4	1
Measles and Varicella	2	—
Impetigo.....	1	—
Erysipelas	1	—
Cellulitis of Face	1	—
	40	5

Mortality ... ... 12·5 %

APPENDIX.

The following tables I, II, III, IV, V, and marked also A, B, C, D, E, are prepared pursuant to an instruction of the Local Government Board.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1910 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of non-residents registered in Public Institutions in the District.	Deaths of residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
				Under 1 year of age.		At all ages.						
		Number.	Rate.*	Number.	Rate per 1000 Births regist'd.	Number.	Rate.*				Number.	*Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1900.....	680628	22762	33·4	4247	186	16393	24·0	4257	616	8	15785	23·1
1901.....	686332	21980	32·0	4138	188	15493	22·5	4231	618	4	14879	21·6
†1902.....	707927	24283	34·2	3936	162	15994	22·6	4564	602	4	15396	21·7
1903.....	710874	23910	33·6	3815	159	14848	20·7	4549	685	77	14240	20·0
1904.....	714743	24278	33·9	4780	196	16524	23·1	4587	673	35	15886	22·1
‡1905.....	721864	24350	33·7	3762	154	14849	20·5	4908	746	28	14131	19·5
1906.....	726100	24123	33·2	4194	173	15745	21·6	4985	744	60	15061	20·6
1907.....	730361	23654	32·3	3438	145	14408	19·7	4984	732	46	13722	18·7
1908.....	734648	23891	32·5	3403	142	14663	19·9	5319	733	76	14006	19·0
1909.....	738960	23591	31·9	3437	145	14761	19·9	5388	779	72	14054	19·0
Averages for years 1900-1909.	715153	23682	33·0	3915	165	15367	21·4	4777	692	41	14716	20·5
1910.....	743295	23054	31·0	3267	141	13917	18·7	5274	574	113	13456	18.1

* Rates in Columns 4, 8, and 13 calculated per 1000 of the corrected population as ascertained by the Census Returns of 1901 and 1911.

† Garston included. ‡ Fazakerley included.

Note.—The deaths to be included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public institutions" to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

Area of District in acres (exclusive of area covered by water). 16,619.

Total population at all ages.....704,134 } At Census
Number of inhabited houses .....126,835 } of
Average number of persons per house .....5·5 } 1901.
Total population at all ages at Census of 1911, ...746,566

A

A—*Continued.*

I. Institutions within the District receiving sick and infirm persons from outside the District.	II. Institutions outside the District receiving sick and infirm persons from the District.	III. Other Institutions, the deaths in which have been distributed among the several localities in the District.
Parish Workhouse, Brownlow Hill.	County Asylums.	Epileptic Hospital.
Royal Infirmary.	Deysbrook Children's Hospital.	Leyfield Poor Law Schools.
Children's Infirmary.		Branch Workhouse, Luton Street.
Consumption Hospital.		Cottage Homes, Fazakerley.
Hahnemann Hospital.		,, ,, Olive Mount
Maternity Hospital.		Walton Gaol.
Eye and Ear Infirmary.		Accident Hospital, Garston.
David Lewis Northern Hospital.		Samaritan Hospital.
Stanley Hospital.		St. Paul's Eye and Ear Hospital.
Royal Southern Hospital.		Children's Rest.
Mill Road Infirmary.		Nazareth House.
Hospital for Women.		Babies' Home.
City Hospital North.		
,, South.		
,, Parkhill.		
,, East		
,, Fazakerley.		
Walton Workhouse.		
Belmont Road Workhouse.		
Toxteth Workhouse.		
Highfield Infirmary.		
Turner Memorial Home.		
St. Augustine's Home.		
Kirkdale Home.		
House of Providence.		
St. Joseph's Home.		
Home for Incurables.		
Tuebrook Villa Asylum.		
Nursing Homes.		

The three Union Workhouses are situated within the District.

TABLE II.

Vital Statistics of Separate Districts in 1910 and previous years.

Names of Localities.	1.—Scotland District.				2.—Exchange District.				3.—Abercromby District.				4.—Everton District.			
Year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
1900	53049	2166	1830	521	42405	1332	1549	347	52645	1633	1303	252	120904	4442	2896	846
1901	52934	2044	1694	455	41831	1180	1299	285	52301	1565	1099	245	121953	4216	2902	819
1902	52623	2225	1745	492	41679	1216	1432	298	51906	1757	1155	220	121397	4627	2735	731
1903	51958	2267	1578	489	41314	1230	1244	261	51094	1713	1141	227	121340	4342	2656	768
1904	51301	2237	1732	577	40940	1275	1456	369	50294	1652	1065	220	121282	4444	2947	949
1905	50654	2170	1661	493	40472	1234	1311	297	49507	1715	1008	214	121225	4413	2471	705
1906	50014	2137	1633	528	40010	1227	1304	319	48732	1664	1032	201	121167	4422	2770	897
1907	49383	2098	1466	428	39553	1176	1278	295	47970	1709	929	161	121109	4307	2449	648
1908	48759	2058	1524	432	39101	1139	1181	284	47220	1820	947	194	121053	4219	2587	678
1909	48044	1953	1456	414	38554	1127	1254	285	46382	1857	914	155	120995	4182	2568	660
Averages of Years 1900 to 1909.	50872	2135	1632	483	40586	1213	1331	304	49805	1708	1059	209	121242	4361	2698	770
1910	47225	1896	1441	419	37887	1061	1112	262	45318	1848	865	149	120938	4014	2395	627

Note.—Population of each district corrected as per Census Returns of 1901 and 1911.

TABLE II.—*continued.*

Names of Localities.	5.—Kirkdale District.				6.—West Derby (West) District.				7.—Toxteth District.			
Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
1900	69132	2408	1552	470	85924	3019	1836	507	106393	3429	2496	681
1901	69410	2292	1438	448	86882	2921	1736	522	105922	3356	2349	632
1902	69144	2396	1494	402	86546	2986	1729	450	105454	3671	2421	630
1903	68950	2352	1301	338	86428	2996	1640	463	104984	3405	2141	573
1904	68757	2468	1573	528	86309	2902	1712	526	104517	3586	2380	685
1905	68564	2324	1381	405	86191	2891	1566	419	104052	3436	1935	509
1906	68373	2323	1373	378	86074	2853	1657	439	103589	3415	2299	614
1907	68181	2278	1315	357	85956	2758	1520	376	103128	3328	1954	487
1908	67990	2249	1421	330	85838	2749	1488	354	102669	3272	1926	460
1909	67800	2213	1350	329	85721	2628	1599	364	102212	3280	1919	481
Averages of Years 1900 to 1909.	68630	2330	1420	398	86187	2870	1648	442	104292	3418	2182	575
1910	67710	2120	1298	295	85624	2631	1489	369	102057	3095	1903	452

Note.—Population of each district corrected as per Census Returns of 1901 and 1911.

B—3—*Continued.*

TABLE II.—*continued.*

Names of Localities.	8.—Walton District.				9.—West Derby (East) District.				10.—Wavertree District.				11.—Toxteth (East) (late Toxteth Rural).			
Year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*	*a.*	*b.*	*c.*	*d.*
1900	53376	1754	855	245	43245	1161	749	155	24174	820	396	115	29381	598	315	63
1901	54977	1742	824	270	44016	1162	763	192	25670	888	411	147	30436	614	364	74
1902	56881	1897	887	250	45907	1302	721	146	26795	962	399	118	30695	603	397	93
1903	59161	1912	812	228	47817	1426	718	177	28131	980	414	116	31108	630	296	56
1904	61203	1898	986	298	49890	1479	791	216	29526	997	486	151	31526	664	389	92
1905	63409	2075	870	218	51730	1503	749	169	31224	1101	453	124	32097	654	374	62
1906	65482	1971	909	242	53638	1491	875	211	32686	1101	488	140	32661	689	342	62
1907	67523	2014	892	213	55617	1536	777	159	34195	994	393	99	33063	663	341	51
1908	69635	2154	874	189	57669	1606	845	178	35710	1099	476	115	33255	686	344	48
1909	71820	2140	885	231	59698	1618	881	200	87154	1096	436	97	33702	695	407	67
Averages of Years 1900 to 1909.	62346	1955	879	239	50922	1428	787	180	30526	1004	435	122	31792	649	357	67
1910	73890	2223	902	198	61602	1584	844	185	38721	1112	473	100	34210	648	388	53

Note.—Population of each district corrected as per Census Returns of 1901 and 1911.

B—*Continued.*

TABLE II.—**B**—*Continued.*

Names of Localities.	12.—Garston District.			
Year	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.
	a.	*b.*	*c.*	*d.*
1900	16966	544	268	91
1901	17398	562	340	104
1902	18000	641	277	69
1903	18589	657	290	79
1904	19198	676	369	124
1905	19827	716	299	84
1906	20476	710	339	94
1907	21147	690	367	145
1908	21839	744	339	82
1909	22555	688	290	78
Averages of Years 1900 to 1909...	19599	663	318	95
1910	23326	696	305	100

Names of Localities.	13.—Fazakerley District.			
Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.
	a.	*b.*	*c.*	*d.*
1900	1753	36	14	4
1901	1935	39	14	5
1902	2139	63	24	4
1903	2365	85	34	11
1904	2615	100	33	13
1905	2892	118	53	10
1906	3198	120	40	12
1907	3536	103	41	4
1908	3910	96	54	11
1909	4323	114	58	16
Averages of Years 1900 to 1909...	2866	87	36	9
1910	4787	126	41	7

Note.—Population corrected as per Census Returns of 1901 and 1911.

C

TABLE III.

Cases of Infectious Disease notified during the Year 1910.

Notifiable Disease.	Cases Notified in whole District.							Total Cases notified in each Locality.														Public Institutions (Workhouses and Hospitals).	Emigrants, Seamen, &c., passing through the City.	No. of Cases removed to Hospital from each Locality.														Public Institutions (Workhouses and Hospitals).	Emigrants, Seamen, &c., passing through the City.	Total Cases Removed to Hospital.
	At all Ages.	At Ages—Years.						Scotland.	Exchange.	Abercromby.	Everton.	Kirkdale.	West Derby (West).	Toxteth.	Walton.	West Derby (East).	Wavertree.	Sefton Park (late Toxteth Rural).	Garston.	Fazakerley.			Scotland.	Exchange.	Abercromby.	Everton.	Kirkdale	West Derby (West).	Toxteth.	Walton.	West Derby (East).	Wavertree.	Sefton Park (late Toxteth Rural).	Garston.	Fazakerley.			
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.																																		
Small-pox	10	1	...	3	...	5	1	1	1	(W) 2	(H) (W) ...	...	1	(H-H) 1	(W) ...	(H) ...	...	(W) 2	...	(H) (H) ...	...	2	1	1	2	...	...	1	1	...	...	...	2	...	...	...	2	10
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	1001	22	425	401	94	59	...	27	20	40	237	42	107	142	189	93	51	19	18	1	7	8	25	16	33	188	35	68	102	139	52	39	8	13	1	6	8	733
Membranous croup	11	2	9	...	...	...	...	...	2	1	2	2	2	1	1	...	...	...	...	...	...	...	...	1	1	1	1	...	...	1	...	...	...	...	...	...	...	5
Erysipelas	804	15	38	50	105	531	65	61	72	45	237	45	64	121	76	22	12	4	14	2	28	1	8	11	9	21	8	5	14	12	1	...	...	2	...	...	1	92
Scarlet fever	4202	87	1603	2172	233	106	1	95	76	133	913	202	617	645	618	263	352	77	82	12	106	11	82	66	110	807	177	522	555	491	205	276	57	74	7	106	11	3546
Typhus fever	11	...	1	2	4	4	...	...	...	2	1	5	3	...	...	...	...	...	...	...	...	...	...	...	2	1	5	3	...	...	...	...	...	...	...	...	...	11
Enteric fever	231	...	14	72	57	87	1	23	11	9	46	10	28	35	11	11	12	1	7	...	...	27	12	7	4	29	3	9	17	4	3	4	...	3	...	...	24	119
Relapsing fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever	2	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever	41	...	...	...	13	28	...	3	1	1	6	7	6	7	4	2	3	...	1	...	...	...	1	1	1	3	3	1	5	3	...	2	...	1	...	...	...	21
Anthrax	8	...	...	...	...	8	...	1	...	...	6	...	...	1	...	...	...	...	...	...	...	...	1	...	...	6	...	...	1	...	...	...	...	...	...	...	...	8
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*Tuberculosis	1157	17	136	212	173	615	4	131	153	74	268	68	118	167	57	51	31	18	13	5	...	3	5	12	4	59	13	14	39	27	17	5	2	4	1	...	...	202
†Tuberculosis	1567	...	17	162	289	1078	21	148	288	152	381	81	168	177	53	45	17	5	22	1	...	29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	9045	144	2245	3074	968	2521	93	490	624	459	2097	462	1114	1299	1009	487	478	126	157	21	141	81	135	115	166	1115	245	623	734	677	278	326	69	97	9	112	46	4747

(H) The localities in which the Isolation Hospitals are situated.
(W) The localities in which Workhouses are situated.
* Notification voluntary since February, 1901.
† Public Health (Tuberculosis) Regulations, 1908.

Isolation Hospitals—Name and Situation...
- City Hospital North, Everton.
- ,, ,, South, Toxteth,
- ,, ,, Park Hill, Toxteth,
- ,, ,, East, West Derby (East),
- ,, ,, Fazakerley, Fazakerley,
- ,, ,, ,, Annexe, Fazakerley.

Total available beds.....1,104

Number of Diseases that can be concurrently treated..... 10

D

TABLE IV.

Causes of, and ages at, Death during Year 1910.

Causes of Death.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Residents" belonging to Localities, whether occurring in or beyond the District.												Total Deaths whether of Residents or non-"Residents" in public Institutions in the District
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Scotland.	Exchange.	Abercromby.	Everton.	Kirkdale	West Derby. (West).	Toxteth.	Walton.	West Derby. (East).	Waver-tree.	Toxteth East.	Garston.	Fazakerley.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	458	113	320	25	...	...	...	60	38	29	99	52	45	78	20	12	10	4	10	1	164
Scarlet fever	173	10	98	58	7	...	...	12	4	6	21	10	35	28	22	15	11	7	...	2	162
Whooping-cough	442	200	230	12	...	...	...	88	41	19	85	65	38	36	19	19	10	10	10	2	84
Diphtheria and membranous croup	98	5	56	36	1	...	...	3	5	5	19	7	5	15	14	12	3	7	2	1	70
Croup	10	...	9	1	...	...	...	...	...	...	3	1	2	1	2	...	...	1	...	...	...
Fever (Typhus)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever (Enteric)	32	...	...	6	9	16	1	5	2	3	3	5	3	2	2	1	5	1	...	...	34
Fever (Other continued)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic influenza	76	8	3	2	2	31	30	5	3	5	7	11	4	17	6	5	3	8	2	...	14
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*Diarrhœa	534	296	214	7	1	5	11	121	61	25	117	56	47	62	15	15	5	4	4	2	86
*Enteritis	251	144	67	6	2	22	10	27	24	11	49	20	24	31	21	17	8	4	15	...	88
*Gastritis	172	101	32	4	2	22	11	62	3	5	36	22	16	10	5	6	3	1	3	...	12
*Puerperal fever	9	...	...	...	...	9	...	...	1	1	3	...	1	...	2	1	...	...	...	...	6
Erysipelas	27	3	1	...	2	14	7	6	2	...	3	3	4	4	1	1	2	1	...	...	17
Phthisis (Pulmonary Tuberculosis)	1023	8	24	51	176	735	29	101	117	75	192	85	123	122	67	65	43	12	15	6	567
Other tubercular diseases	356	60	137	68	54	29	8	31	20	22	56	36	39	53	20	22	22	21	12	2	179
*Cancer, malignant disease	680	...	1	2	4	452	221	41	37	46	103	61	90	89	57	70	31	36	17	2	321
Bronchitis	1442	297	110	10	7	493	525	180	139	97	280	155	162	197	69	82	34	22	22	3	482
Pneumonia	1282	278	406	59	41	388	110	140	121	87	236	104	143	230	78	52	35	22	31	3	398
Pleurisy	43	1	9	4	3	21	5	4	4	3	4	7	4	5	4	1	2	3	2	...	20
Other diseases of Respiratory organs	148	16	35	11	5	56	25	24	7	8	30	20	13	20	6	8	6	4	2	...	11
Alcoholism and Cirrhosis of liver	153	...	...	1	2	134	16	15	17	17	15	14	19	15	12	10	7	4	6	2	87
Venereal diseases	40	34	2	...	...	4	...	3	3	4	7	1	4	7	3	3	1	1	3	...	21
Premature birth	485	485	...	...	...	...	...	55	37	24	84	36	52	69	41	41	22	10	14	...	78
Diseases and accidents of parturition	33	...	...	...	8	25	...	5	2	2	8	1	3	3	2	4	2	1	...	...	14
Heart diseases	863	1	1	36	53	479	293	65	59	85	132	79	96	108	63	74	36	46	19	1	304
Accidents	509	91	94	52	28	174	70	65	59	39	77	70	48	56	31	25	14	7	14	4	295
Suicides	45	...	...	...	9	35	1	7	...	6	1	4	4	9	4	7	1	2	...	...	13
All other causes	4072	1065	330	131	86	1337	1123	316	306	241	725	373	465	636	316	276	157	149	102	10	1747
All causes	13,456	3216	2179	582	502	4481	2496	1441	1112	865	2395	1298	1489	1903	902	844	473	388	305	41	5274

*See notes at back.

NOTES TO TABLES IV. AND V.

(*a*) In Table IV., all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be *included* with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-21 to be *included* among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the district are in like manner to be *excluded* from columns 2-8 and 9-21 of Table IV.

(*b*) *See* notes on Table I. as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" in Table IV. should be the same as those in Tables II. and III.

(*c*) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (*a*), to be entered in the last column of Table IV. The total number in this column should equal the figures for the year in column 9, Table I.

(*d*) The total deaths in the several "Localities" in columns 9-21 of Table IV. should equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of Table IV. should equal the gross total of columns 9-21 and the figures for the year in column 12 of Table I.

(*e*) Under the heading of "Diarrhœa" are to be included deaths registered as due to Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Dysentery and Dysenteric diarrhœa, Choleraic diarrhœa, Cholera (other than Asiatic or epidemic) and Cholera Nostras.

Deaths from diarrhœa secondary to some other well-defined disease should be included under the latter.

Deaths from Enteritis, Muco-Enteritis, Gastro-Enteritis, and Gastritis (see under the heading Diarrhœal Diseases in Table V.) in Tables IV. and V. should be placed immediately below, but separately from, those enumerated under the heading Diarrhœa as defined by enumeration above. This is particularly important for deaths under one year of age, as many of the deaths in infancy returned as due to Enteritis are really caused by Epidemic Diarrhœa. In the course of years, by the adoption of this recommendation, it will be practicable to ascertain the probable amount of transfer between these different headings.

(*f*) Under the headings of "Cancer" and "Puerperal fever" should be included all registered deaths from causes comprised within these general terms. Thus: Under "Cancer" should be included deaths from Cancer, Carcinoma, Malignant disease, Scirrhus, Epithelioma, Sarcoma, Villous tumour, Papilloma of bladder, and Rodent ulcer. Under "Puerperal Fever" are to be included deaths from Pyæmia, Septicæmia, Sapræmia, Pelvic peritonitis, Peri- and Endo-Metritis occurring in the Puerperium.

(*g*) Under "Congenital Defects" in Table V. are to be included deaths from Atelectasis, Icterus neonatorum, Navel hæmorrhage, Malformations and Congenital hydrocephalus.

(*h*) Under "Tuberculous Meningitis" are to be included deaths from Acute hydrocephalus.

(*i*) Under "Other Tuberculous Diseases" are to be included deaths from Tuberculosis, Tuberculosis of bones, joints and other organs, Lupus and Scrofula.

(*j*) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified"; all other deaths are to be regarded as "Uncertified."

In recording the facts under the various headings of Tables I., II., III., IV. and V., attention has been given to the notes on the Tables.

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Diagram showing Birth Rate (blue) Death Rate (black) Number of Deaths of Infants under one year out of every 1000 born (green) estimated Population per acre, excluding Docks, Quays &c. (red) } Per 1000 of the estimated Population } in each of the Districts of the City during 1910.

FAZAKERLEY
26.3
8.6
55
2.8

WEST DERBY—EAST
25.7
13.5
117
20.6

WAVERTREE
28.7
12.2
90
21.0

GARSTON
29.8
13.0
143
14.5

WALTON
30.1
12.1
89
38.8

WEST DERBY—WEST
30.7
17.2
140
127.1

EVERTON
33.1
19.6
156
174.8

TOXTETH—EAST
(LATE TOXTETH RURAL)
18.9
11.3
81
26.4

TOXTETH
30.3
18.5
145
117.7

KIRKDALE
31.3
19.0
139
95.9

ABERCROMBY
40.7 (M)
18.8
80
67.2

SCOTLAND
40.2
30.2
220
120.4

EXCHANGE
28.1
29.0
246
80.0

RIVER MERSEY

CITY OF LIVERPOOL.

POPULATION 743,295

1910.

Birth Rate for whole City ... ... 31·0
Death Rate ... ... 17·9
Infantile Death Rate per 1000 Births 139
(M) Maternity Hospital in this District.



F

DEATHS REGISTERED IN THE CITY OF LIVERPOOL.

DURING THE YEAR ENDING SATURDAY, 31st DECEMBER, 1910.

CAUSE OF DEATH	SEX. Males	SEX. Females	AGE BELOW 1	2	3	4	5	10	15	20	25	30	40	50	60	65	70	80	90	102
ALL CAUSES	7304	6613	3267	1301	148	249	199	107	217	227	303	349	886	1159	1471	837	312	1277	362	31
I.—Zymotic and Septic Diseases	990	1014	689	361	187	114	86	142	21	15	18	12	32	33	19	18	22	29	3	..
II.—Diseases of Uncertain or Variable Seat.	359	121	4	3	6	4	..	3	2	..	6	13	18	151	205	91	127	93	17	2
III.—Tubercular Diseases	863	590	69	80	71	33	19	60	65	99	112	121	283	241	157	33	18	17	2	..
IV.—Constitutional Diseases	95	106	10	11	8	2	1	4	5	5	7	8	17	21	30	19	18	26	6	..
V.—Diseases of the Nervous System	641	634	326	72	22	12	7	35	18	20	16	18	51	89	157	109	107	167	41	2
VI.—Diseases of the Circulatory System	564	562	3	..	1	..	..	11	27	28	30	34	77	125	197	148	173	224	50	3
VII.—Diseases of the Respiratory System	1585	1103	596	343	142	70	41	66	21	17	41	57	136	187	380	230	265	331	81	4
VIII.—Diseases of the Digestive System	787	423	322	103	20	10	12	19	17	13	20	21	53	82	82	44	31	51	7	..
IX.—Diseases of the Lymphatic System	10	18	..	..	..	..	..	1	1	1	3	1	5	5	8	2	1	..	..	..
X.—Diseases of the Urinary System	245	165	4	3	3	..	1	7	5	9	9	11	43	75	96	61	36	39	6	..
XI.—Diseases of the Reproductive System	..	63	..	..	..	..	..	..	1	1	8	10	25	11	6	1	..	..	..	..
XII.—Diseases of the Joints, &c	19	12	4	5	1	..	..	5	1	..	1	..	2	3	3	1	1	1	..	..
XIII.—Dietetic Diseases	3	6	6	..	..	..	..	..	..	..	..	2	..	3	3	1	1	1	..	..
XIV.—Developmental Diseases	881	812	1104	72	18	2	2	1	..	..	..	..	1	..	1	..	..	..	..	..
XV.—Diseases of the Integumentary System	19	25	14	5	..	1	1	1	..	..	1	2	5	3	1	3	4	21	72	245
XVI.—Violence, &c	542	359	116	13	17	20	20	51	26	24	31	30	106	130	125	52	36	50	18	2
Causes ill defined or not specified	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..

DISTRICTS — WARDS	Scotland	Exchange	Abercromby	Everton	Kirkdale	West Derby West	Toxteth	Walton	West Derby East	Wavertree	Toxteth Rural	Garston	Parkhurst
	Scotland and Netherfield	Castle Street and Exchange	St. Peter's and St. George's	Everton and Netherfield	Kirkdale and Sandhills	Edge Hill, Low Hill and Kensington	Prince's Park, Princes Dock and Brunswick	Walton Breck and Oxford	West Derby East and Old Swan	Wavertree and Childwall	Sefton Park, Oakland and West	Garston and Aigburth	Parkhurst
ALL CAUSES	883	479	504	1517	873	930	1291	652	632	350	296	238	33
I.—Zymotic and Septic Diseases	231	96	66	264	163	116	184	59	56	28	32	26	4
II.—Diseases of Uncertain or Variable Seat.	15	15	31	59	38	58	60	11	51	28	31	12	2
III.—Tubercular Diseases	16	28	36	118	74	81	104	63	63	46	25	16	7
IV.—Constitutional Diseases	5	2	9	15	9	15	18	18	10	6	7	6	1
V.—Diseases of the Nervous System	65	29	45	118	86	101	150	87	70	47	28	18	2
VI.—Diseases of the Circulatory System	28	22	56	91	65	79	90	56	64	30	18	25	1
VII.—Diseases of the Respiratory System	234	142	110	407	216	218	337	129	121	64	47	46	6
VIII.—Diseases of the Digestive System	87	22	35	98	64	58	71	18	48	21	20	18	..
IX.—Diseases of the Lymphatic System	..	..	..	1	..	1	2	1	4	1	..	1	..
X.—Diseases of the Urinary System	10	5	25	25	17	16	39	16	19	9	26	7	2
XI.—Diseases of the Reproductive System	3	1	3	8	1	3	5	..	3	..	2	..	..
XII.—Diseases of the Joints, &c	..	..	..	..	..	1	1	..	3	2	..	..	..
XIII.—Dietetic Diseases	..	..	..	..	..	..	..	..	..	..	..	3	..
XIV.—Developmental Diseases	..	..	1	2	1	1	..	..	..	..	..	..	..
XV.—Diseases of the Integumentary System	97	59	60	203	88	136	171	111	91	52	25	46	4
XVI.—Violence, &c	3	1	..	6	2	2	1	1	..	1	2	..	..
Causes ill defined or not specified	49	57	28	69	50	44	58	22	29	15	9	14	4

PUBLIC INSTITUTIONS — Abercromby District	Liverpool Workhouse	Royal Infirmary	Children's Infirmary	Maternity Hospital	Hahnemann Hospital	Cottage Hospital
ALL CAUSES	1017	313	299	31	28	8
I.—Zymotic and Septic Diseases	107	4	28	1	4	..
II.—Diseases of Uncertain or Variable Seat.	11	49	4	..	1	..
III.—Tubercular Diseases	211	17	42	..	6	7
IV.—Constitutional Diseases	10	10	5	..	..	..
V.—Diseases of the Nervous System	58	42	3	..	3	..
VI.—Diseases of the Circulatory System	42	18	17	3	1	..
VII.—Diseases of the Respiratory System	228	19	71	1	6	1
VIII.—Diseases of the Digestive System	48	51	25	..	4	..
IX.—Diseases of the Lymphatic System	..	4	..	..	..	..
X.—Diseases of the Urinary System	1	4	..	..	..	..
XI.—Diseases of the Reproductive System	9	6	..	6	1	..
XII.—Diseases of the Joints, &c	2	1	7	..	..	..
XIII.—Dietetic Diseases	..	..	..	..	..	..
XIV.—Developmental Diseases	..	..	..	..	..	..
XV.—Diseases of the Integumentary System	141	1	60	19	..	..
XVI.—Violence, &c	2	1	3	..	..	..
Causes ill defined or not specified	79	58	30	..	..	..

PUBLIC INSTITUTIONS — Exchange District	Dock Labourers' Hospital	Kirkdale District	Stanley Hospital	Everton District	Netherfield Road Hospital	Toxteth District	Parish Hospital	Grafton Street Hospital	Shaw Street District	Shaw Street Hospital	Toxteth District	Royal Southern Hospital	Everton District	Mill Road Infirmary	Walton District	Walton Workhouse	Netherfield Road Workhouse	Fazakerley District	Fazakerley Hospital	West Derby East	Mill Lane Hospital	Toxteth District	Toxteth Workhouse	West Derby East	Highfield Infirmary	Other Institutions.	CITY OF LIVERPOOL
ALL CAUSES	185	157	93	40	16	19	187	787	962	147	155	77	375	189	194	13917
I.—Zymotic and Septic Diseases	10	2	62	39	39	..	11	23	120	18	121	69	11	..	16	2004
II.—Diseases of Uncertain or Variable Seat.	11	17	..	..	..	..	8	18	68	54	9	1	..	25	14	13	780
III.—Tubercular Diseases	11	3	11	1	..	..	9	241	91	7	14	1	61	25	14	1153
IV.—Constitutional Diseases	2	5	1	..	..	..	1	13	16	5	..	1	5	8	..	201
V.—Diseases of the Nervous System	11	9	..	..	1	..	7	100	57	18	1	2	28	52	32	1275
VI.—Diseases of the Circulatory System	11	9	..	..	..	..	14	50	163	9	..	..	23	47	31	1126
VII.—Diseases of the Respiratory System	19	12	..	..	5	..	24	138	190	46	8	4	72	34	27	2988
VIII.—Diseases of the Digestive System	4	2	..	..	..	..	3	31	12	14	15	1	10	1	1	910
IX.—Diseases of the Lymphatic System	27	12	1	..	..	..	1	3	1	1	..	..	1	..	..	28
X.—Diseases of the Urinary System	1	4	..	..	..	..	..	3	..	..	..	..	1	..	..	44
XI.—Diseases of the Reproductive System	7	12	1	..	..	..	13	37	24	9	..	..	15	..	4	110
XII.—Diseases of the Joints, &c	9	6	..	..	..	..	..	3	..	..	..	..	..	..	2	63
XIII.—Dietetic Diseases	2	1	7	..	..	..	..	3	..	..	..	..	..	..	..	31
XIV.—Developmental Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
XV.—Diseases of the Integumentary System	1	1	..	..	..	..	1	42	122	4	5	..	104	6	37	1603
XVI.—Violence, &c	2	1	3	..	..	..	..	7	..	2	2	..	4	..	..	44
Causes ill defined or not specified	46	59	19	4	2	..	16	2	17	901
	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1

Class 1.—Chicken Pox	2	3	3	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	233	241	120	205	63	44	17	25	..	..	..	..	..	..	..	..	..	..	..	..
Scarlatina	89	90	10	19	31	19	32	52	9	5	2	..	..	..	..	..	..	..	..	..
Whooping-Cough	206	244	203	140	47	28	19	13	..	..	..	..	..	..	..	..	..	..	..	..
Mumps	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	40	60	4	18	10	15	14	35	3	1	..	..	..	..	..	..	..	..	..	..
Membranous Croup	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	299	241	300	172	35	8	2	6	1	..	1	..	..	..	..	..	..	..	..	..
Dysentery	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2	2	7	1
Cholera Infantum & English Cholera	2	..	1	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..
Cerebro-Spinal Fever	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Typhoid Fever	26	16	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	14	16	3	..	..	..	..	3	4	6	6	5	11	4	1	1	1	..	..	..
Syphilis	17	27	36	2	..	..	..	1	..	..	1	1	..	6	2	3	5	4	4	..
Puerperal Fever	..	9	..	..	..	..	..	..	..	..	..	..	2	..	2	1	1	..	..	..
Rheumatic Fever	12	15	..	..	..	..	..	..	..	..	..	..	..	4	5	..	..	..	..	..
Influenza	39	41	8	3	..	..	..	..	..	..	2	1	1	1	5	9	10	8	13	17
Malaria	4	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..
Beri-beri	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sleeping Sickness	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Septicæmia	2	7	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Class 2.—Abscess	5	6	4	..	1	..	..	..	..	..	1	1	1	..	1	1	1	..	..	..
Cancer	312	403	..	..	..	1	..	2	2	..	5	12	46	151	201	91	125	91	17	1
Tumour	6	6	..	..	..	..	..	..	..	..	..	..	1	..	3	2	1	4	..	1
Noma	6	6	..	3	5	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Class 3.—Phthisis	644	428	8	10	5	6	3	20	32	79	99	112	261	229	146	32	15	14	1	..
Tabes Mesenterica	44	40	26	20	8	5	4	11	8	1	1	..	..	..	..	..	..	..	..	..
Hydrocephalus	72	51	24	31	18	14	9	17	8	2	..	..	..	..	..	..	..	..	..	..
Tuberculosis (other forms)	103	71	11	19	12	8	3	12	17	17	12	9	22	12	11	2	3	3	1	..
Class 4.—Rheumatism	11	27	..	..	..	..	..	..	..	..	..	..	..	5	10	6	7	7	3	..
Rickets	10	13	5	10	6	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Hydrocephalia	3	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..
Diabetes	37	30	..	..	..	1	..	..	3	2	1	3	9	11	11	4	4	12	3	..
Gout	4	2	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	2	..	..
Anæmia	23	29	1	..	..	..	..	..	2	..	1	3	4	6	7	8	6	6	5	..
Purpura	5	2	..	1	2	..	1	..	1	..	..	..	1	..	..	1	..	..	..	..
Leucocythæmia	2	3	..	..	..	..	..	1	1	..	..	1	2	..	..	..	..	..	..	..
Class 5.—Inflammation of Brain, &c	82	68	49	36	14	3	4	21	7	5	2	4	4	..	1	..	..	..	..	..
Cerebro-Spinal Meningitis	6	5	3	..	1	..	..	2	2	..	1	..	..	2	..	..	..	..	..	..
Apoplexy	158	237	..	..	..	..	..	..	..	..	1	4	12	42	73	64	58	105	31	2
Sunstroke	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Paralysis	78	71	..	..	..	..	..	..	1	1	1	..	6	10	37	20	27	38	8	..
Chorea	1	3	1	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..	..	..
Epilepsy	18	24	..	..	1	..	2	4	2	2	2	5	5	3	7	2	2	5	..	..
Disease of Spine	11	7	..	..	..	..	..	..	2	..	1	1	3	3	2	..	1	2	..	..
Convulsions	174	121	258	28	5	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Laryngismus Stridulus	3	3	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Myelitis	7	5	1	..	..	..	..	..	..	..	..	1	3	1	1	..	..	1	..	..
Tetanus	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Otitis	19	9	2	2	1	5	..	3	2	5	3	..	2	1	1	..	1	..	..	..
Neuritis	2	8	..	..	..	..	..	..	..	..	..	..	3	3	3	1	..	..	..	..
Other Diseases of Brain	81	72	8	3	..	2	..	3	2	3	4	2	16	24	31	22	15	16	2	..
Class 6.—Disease of Heart	286	280	1	..	1	..	..	8	16	12	24	17	36	46	113	89	76	111	16	..
Angina Pectoris	6	1	..	..	..	..	..	..	..	..	..	..	..	..	1	3	2	1	..	..
Valvular Disease	119	188	..	..	..	..	..	3	11	11	6	15	31	60	52	24	17	37	9	1
Thrombosis	2	4	..	..	..	..	..	..	..	..	..	1	..	..	..	2	2	1	..	..
Aneurism	19	..	..	..	..	..	..	..	..	..	..	..	5	8	1	2	..	3	..	..
Hæmorrhage	5	1	2	..	..	..	..	..	..	..	..	..	2	1	..	..	1	..	..	..
Gangrene	7	7	..	..	..	..	..	..	..	..	..	..	..	1	3	1	4	5	..	..
Embolism	13	14	..	..	..	..	..	..	..	..	..	1	3	7	6	2	3	4	1	..
Disease of Blood Vessels	107	67	..	..	..	..	..	..	..	..	..	..	2	21	25	38	62	24	2	..
Class 7.—Bronchitis	745	742	298	75	18	8	10	7	3	3	5	11	29	70	240	166	194	273	53	4
Pneumonia	733	564	281	238	95	51	29	46	15	11	20	40	92	102	109	54	54	47	7	..
Asthma	14	13	..	..	..	..	..	1	..	..	..	1	4	1	6	3	5	5	1	..
Disease of Lungs, &c	10	2	..	..	..	..	..	2	..	1	2	2	..	2	1	1	1	..	..	..
Congestion of Lungs	33	38	10	13	3	1	2	4	..	..	4	..	4	7	8	3	8	4	..	..
Croup	4	6	..	4	2	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Pleurisy	26	17	1	3	3	4	1	2	2	2	1	2	3	2	12	1	2	2	..	..
Emphysema	5	3	..	1	..	..	..	2	..	..	..	..	1	1	1	1	1	..	..	..
Laryngitis	13	17	6	9	1	3	2	2	..	..	..	..	2	1	3	1	..	..	..	..
Hæmoptysis	2	1	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	..
Class 8.—Dentition	29	22	29	22	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Inflammation of Stomach	93	79	101	23	3	4	2	3	1	..	2	3	2	4	8	5	5	5	1	..
Inflammation of Bowels	82	64	84	20	6	3	1	3	2	..	1	2	2	6	3	4	1	7	1	..
Peritonitis	12	18	2	1	..	..	2	..	3	..	1	1	5	4	5	2	1	3	..	..
Disease of Stomach, &c	55	56	15	3	3	..	2	1	..	4	5	5	11	19	20	9	6	8	..	..
Disease of Liver	65	41	6	..	..	..	1	1	..	..	2	3	17	23	20	11	10	9	3	..
Gall Stones	6	14	..	..	..	..	..	..	..	..	..	..	3	1	7	3	4	2	..	..
Hæmatemesis	1	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..
Stomatitis	10	9	13	..	2	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..
Tonsillitis	2	6	..	..	2	1	1	..	..	..	..	1	2	..	..	1	..	..	..	..
Gastro Enteritis	64	44	62	30	5	1	3	..	1	1	..	..	..	2	2	..	..	1	..	..
Hernia	12	27	..	..	..	..	..	..	..	..	..	..	2	7	11	5	5	8	1	..
Ileus	24	21	10	..	1	..	..	2	..	..	2	2	2	10	4	3	2	6	1	..
Plumbism	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Appendicitis	31	20	..	..	..	1	1	8	10	7	7	3	7	4	1	1	..	1	..	..
Class 9.—Bronchocele	1	11	..	..	..	..	..	..	..	1	1	..	4	2	3	1	..	..	..	..
Lymphadenoma	7	2	..	..	..	..	..	..	1	..	1	1	..	2	2	..	1	..	..	..
Myxœdema	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..
Disease of Supra Renal Capsule	2	3	..	..	..	..	..	..	..	..	..	..	..	1	2	1	..	..	..	..
Class 10.—Disease of Kidneys, &c	202	159	4	3	2	2	1	6	4	9	9	11	38	70	90	53	27	31	1	..
,, ,, Prostate	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	3	2	..
,, ,, Bladder	24	6	..	..	1	..	..	1	1	..	..	..	4	3	5	4	4	4	3	..
Stricture of Urethra	7	..	..	..	..	..	..	..	..	..	..	..	..	2	1	2	2	..	..	..
Calculus	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..
Class 11.—Childbirth	..	21	..	..	..	..	..	..	..	..	6	5	8	2	..	..	..	..	..	..
Mala Puerperis Incidentia	..	14	..	..	..	..	..	..	1	1	3	7	1	..	..	..	..	..	..	..
Disease of Uterus	..	20	..	..	..	..	..	..	..	..	1	2	9	6	2	..	..	..	..	..
,, ,, Ovary	..	7	..	..	..	..	..	..	..	..	..	..	1	2	3	1	..	..	..	..
Pelvic Cellulitis	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Class 12.—Disease of Bones and Joints	19	12	4	5	1	..	..	5	1	..	1	..	2	3	3	1	1	1	..	..
Alcoholism	..	2	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..
Class 13.—Want of Breast Milk	3	3	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scurvy	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Class 14.—Premature Birth	260	228	188	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Malformation	73	51	118	4	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy	336	252	492	68	18	..	2	2	1	..	..	..	..	..	4	1	..	..	..	..
Old Age	208	279	..	..	..	..	..	..	..	..	..	..	..	..	..	20	72	245	132	18
Injury at Birth	1	2	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Class 15.—Ulcer	1	3	1	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..
Disease of the Skin	6	12	10	1	..	1	1	..	..	..	..	..	1	..	1	..	..	..	..	..
Carbuncle	2	2	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	..	..	..
Cellulitis	10	8	3	1	..	..	..	1	..	..	1	2	4	2	1	1	..	..	..	..
Class 16.—Natural Causes	150	82	22	10	2	1	1	11	13	1	8	11	23	47	38	19	6	12	4	..
,, ,, Excessive Drinking	34	11	..	..	..	..	..	..	..	..	1	..	7	14	15	5	1	2	..	..
Drowned	24	5	..	..	1	..	1	3	..	2	3	1	8	6	2	..	..	..	..	..
Suffocated	35	39	69	2	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
Burns	39	63	2	11	10	13	20	20	4	1	2	..	4	1	7	1	2	4	..	..
Scalds	22	16	7	16	2	3	4	1	1	..	1	..	1	..	..	..	..	1	..	..
Accidentally Killed	135	69	2	4	1	2	3	11	6	12	7	12	21	24	30	16	19	23	9	2
Injuries	23	17	..	..	..	1	..	3	1	..	2	1	8	3	8	3	4	6	..	..
Excessive Drinking	24	22	..	..	..	..	..	..	..	..	..	..	15	21	6	2	1	1	..	..
Want of Attention at Birth	6	6	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Exposure and Self Neglect	3	1	..	..	..	..	..	..	..	..	..	..	1	..	2	..	1	..	..	..
Misadventure	2	4	..	..	..	..	..	..	..	1	1	..	2	1	..	1	..	..	..	..
Accidentally Choked	..	1	..	..	..	..	..	..